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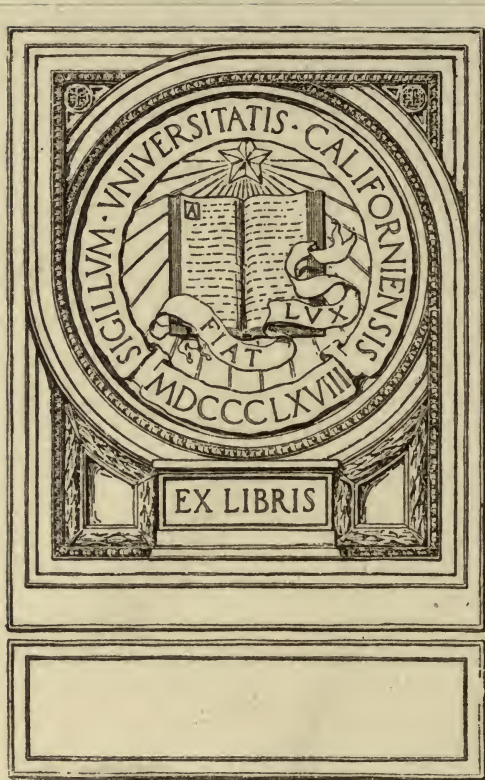


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Analysis and Cost of Ready  
to Serve Foods

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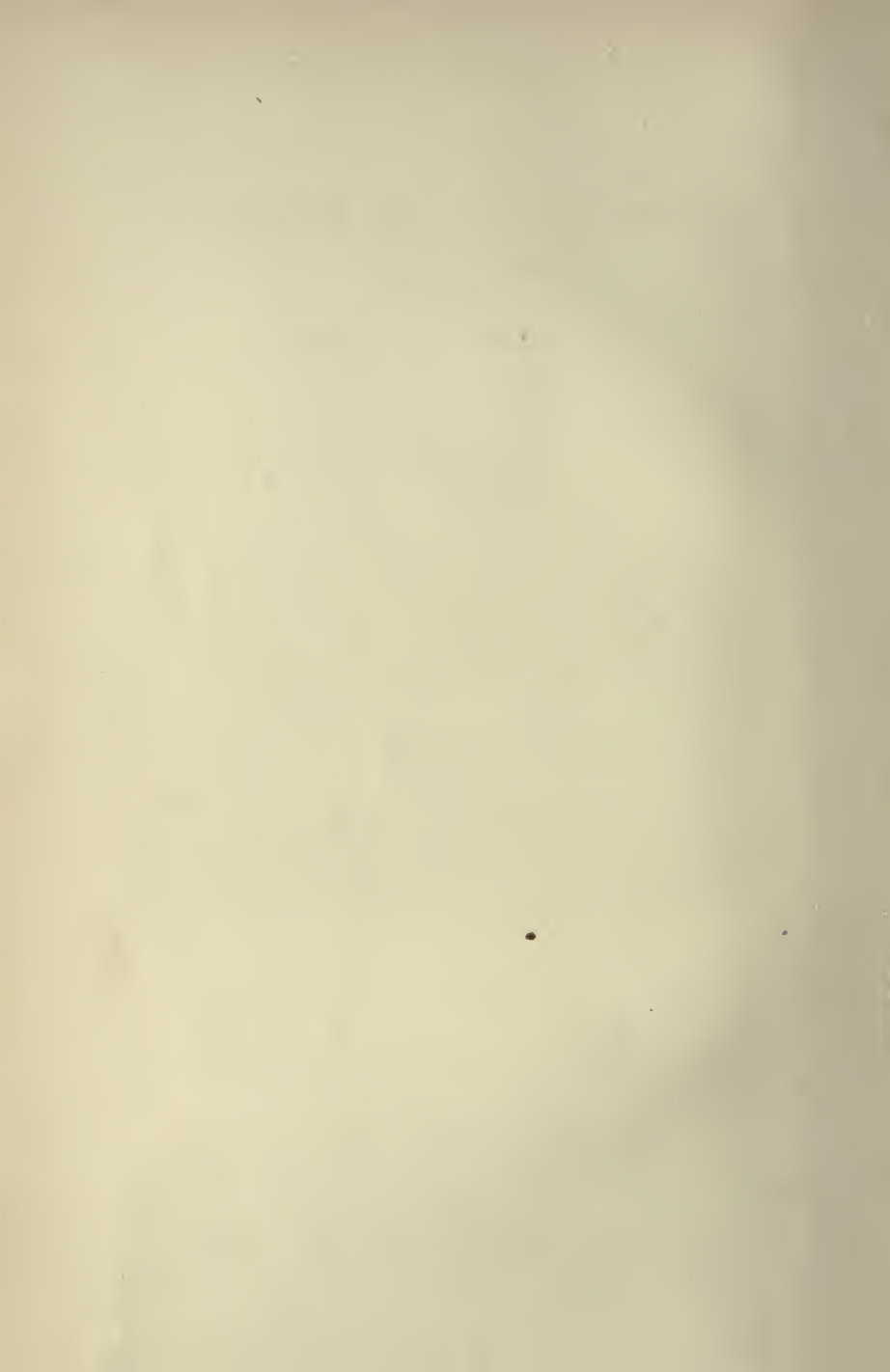
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# Analysis and Cost of Ready-to-Serve Foods

A STUDY IN FOOD ECONOMICS

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F. C. GEPHART

Chemist of the Russell Sage Institute of Pathology, in affiliation with the  
Second Medical Division of Bellevue Hospital

WITH AN INTRODUCTION BY

GRAHAM LUSK

Professor of Physiology of the Cornell University Medical College, and  
Scientific Director of the Russell Sage Institute of Pathology

NEW YORK



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# ANALYSIS AND COST OF READY-TO-SERVE FOODS

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## I. INTRODUCTION

BY GRAHAM LUSK

Very early in his scientific career, in the year 1877, Atwater turned his attention to the question of the nutrition of the people. The many valuable bulletins published by the United States Department of Agriculture testify to much splendid study into the problems of food for the multitude. And yet little practical use has come of it all. Why then talk about nutrition? A critic writes, "We need food, but do we need books to remind us of our need? And as an unanswerable challenge another critic cries, "Does Professor X eat his own diet?" It is truly stated that normal nutrition is associated with appetite, and it is therefore argued that the appetite is not to be controlled by knowledge. One has only to recall the appetite for drink to realize the utter fallacy of this argument. A glass of beer or a glass of wine taken at the end of a wearisome day is not of demonstrable evil and may be of benefit to the digestion. Yet to follow the appetite when it leads to drink in excess is of injury to the body, the mind and the economic

welfare of the individual and therefore inimical to the welfare of the state.

But why repeat such self-evident truths? Has not enough been said? Are not words wasted in repetition of the obvious? In defense one may recall a scene at the New York Academy of Medicine in which Sir William Osler maintained that the essence of successful teaching consisted in "Reiteration, reiteration, reiteration." One of the audience present qualified this definition by adding the words, "without irritation." If successful teaching be accepted as "reiteration without irritation," let the following presentation be an attempt in that direction.

Food has been defined as a well-tasting mixture of foodstuffs of such a composition that the body is not injured by its use, and of sufficient quantity to maintain the body in good condition.

One may consider this definition under three headings.

1. Value of flavor.
2. Importance of composition.
3. Importance of quantity.

#### VALUE OF FLAVOR

It is known to all that the sight of appetizing food "makes the mouth water." It is known, however, to comparatively few that the sight of such food "makes the stomach water" in the same sense. That is to say, a flow of gastric juice is set up in the stomach. This flow is accelerated by the actual taste of the food, so that a large amount of valuable digestive fluid is set to flowing merely through the psychic appreciation of flavor. When food is taken without appetite, this important preliminary flow of gastric juice does not take place and proper digestion is rendered more difficult. Not only this, but the glands lying deeper down in the intestines yield their digestive juices in larger measure, the greater the quantity of gastric

juice which passes from the stomach into the intestine. The appetite is like a magic wand influencing the whole of the digestive process. Fear and anger lead to a parched throat, and in an entirely similar manner to a parched stomach, so that food cannot be well digested under these circumstances. It is familiar to all that the sight, smell or sound of anything repellant will cause loss of appetite. The writer has seen an artist faint when an operation of Dr. Carrel became the subject of a dinner conversation where men and women were present. The appetite is favored by the extraneous refinements of civilized life, such as a spotless table cloth. It would also be affected by the cleanliness of the preparation of the food could one always look behind the scenes. It is affected by the atmosphere of cheer at the table. Neither scolding parents nor snarling children facilitate the digestion of the Christmas dinner.

The question of flavor in all its ramifications is therefore a very important one. It is one of the pitfalls of the prescribing physician, because he is very likely to believe that what he likes is excellent and what he detests is bad. The great multitude of people like pickles, but some do not; the latter class must not argue that pickles are therefore injurious. The common foods of life, such as potatoes, tomatoes, and bananas, all have their personal enemies based on dietetic prejudices which are largely imaginary, although as a psychosis the manifestations of repulsion are very real.

#### IMPORTANCE OF COMPOSITION

A celebrated school mistress once asked that a book be written which would tell her what apple sauce was without introducing the terms protein, carbohydrate and fat. Alas, that is impossible. It would be like teaching architecture without mentioning brick, granite and marble!



But the knowledge is not recondite. Protein is the characteristic solid constituent of muscle. The protein framework is essential for the manifestation of those properties whose aggregate is called life. And besides this, water and salts enter into the organization of the living particles. These salts are as varied as are those of the sea water and they are essential to living things. In vertebrates, salts are further used to build the larger framework of the bones. When various molecules of protein are united in a certain definite order with water and salts, life is possible. If the definite order is disturbed, death results. Life depends on the arrangement of the particles. One recalls the story of the Yankee who, during the winter months, sold a "sure cure for potato bugs" with the caution "not to be opened till wanted for use" and with the promise of instructions for use inside the package. In the summer time, on opening the package the farmer found two small cubes with the directions "place the potato bug on one cube and press firmly with the other." Death not only takes place through such disarrangement of the particles, but also it may follow on the influence of a poison which prevents the proper functioning of the living thing.

A peculiarity of living tissue is that a part of its protein is constantly being broken down and replaced by repairing material. It is as if structural units were constantly being dissolved out of a building and automatically replaced by new ones. In the human body about two and one-half parts out of a thousand of its protein are thus daily renewed. It is as if one structural unit out of every four hundred in a building were replaced with a new one every day. For this reason one must eat protein. This is repair protein to replace that lost in the wear and tear on the machinery of the cells.

Protein is the essential constituent of all meats, fish and eggs; it is a large constituent of milk, and

mixed with fat is the essential constituent of cheese. Protein is not a simple chemical substance, but it may be broken into seventeen different fragments. This is what happens when protein is digested in the stomach and intestines. These fragments are absorbed by the circulating blood and when they are carried to the different tissues the fragments are put together in a manner which is characteristic for each tissue. Suppose each structural unit in a building were made up of seventeen parts, all of them different, such as gold, silver, iron, lead, tin and so on, and when one of these larger structural units went into the scrap heap suppose there were always present a supply of all the several varieties of new parts necessary to build another like it; then one has an analogy of what happens. One might imagine that these seventeen different units might be arranged in different ways, depending on the use to which the particular structural unit was put. In like manner, it comes to pass that the protein of milk is split into fragments in the baby's stomach and these various fragments are absorbed by the blood and are carried by this medium to the different organs of the baby's body, there to build up the structure of each particular organ after its own particular way. The seventeen different chemical units known to occur in protein may be joined together in different ways so that 350 million times a million different combinations are possible even though only a single representative of each unit is used (Abderhalden). In this they resemble the multiplicity of combinations possible with the letters of the alphabet. On account of this it is possible to build liver protein or muscle protein out of milk protein. In the muscles of fish and in the white of egg there are again other variations in the order of those letters of the protein alphabet, and therefore, these proteins are distinctive. These proteins contain all the seventeen units and are therefore capable of repairing any tissue. It has been

suggested that such proteins be called proteins of Grade A.

Proteins are also found in all vegetable foods. The vegetables contain some complete proteins, that is, those which have the full array of seventeen individual units, but they also contain some incomplete proteins, that is, those which are deficient in one or more of the characteristic units which are necessary to build up animal protein. These incomplete proteins have little or no value in nutrition. Thus it comes about that it requires a much larger quantity of vegetable proteins (which include complete and deficient proteins) to maintain the machinery of the body in repair, than when animal protein is given in the form of meat, eggs, fish, milk or cheese.

It must be remembered, however, that when a person is engaged in active labor or excessive exercise he may be able to obtain a very liberal supply of proteins of the higher grade in the large quantity of vegetable foods of which he partakes. This gives a scientific explanation to the saying which has become proverbial, "the railways of the country have been built on beans."

Attention is called to the generally overlooked value of milk protein.

There is no danger of protein undernutrition in this country. The general trend is toward protein extravagance, that is, its ingestion and destruction in excess of the needs of repairing the tissues. This is due to the fact that to most normal men a beefsteak represents the choicest of good things. Here appetite triumphs over reason and economy. If one listens attentively one hears again a rumbling note, "Would Professor X eat his own diet?"

Yet the matter of enormous meat consumption is one of serious economic importance which is not to be lightly tossed aside. The following table prepared by Rubner indicates the quantity of meat consumed



per head of population (adults and children) in the various nations of Europe and also the increase in the consumption of meat in Germany during the last hundred years.

TABLE 1.—RUBNER'S TABLE OF MEAT CONSUMPTION IN EUROPE

	Present Consumption of Meat Per Capita Per Year, Pounds	Consumption of Meat in Germany in Different Years	
		Date	Pounds
Germany.....	115	1912	115
England.....	105	1900	102
France.....	74		
Belgium and Holland.....	75	1892	72
Austria-Hungary.....	64	1873	65
Russia.....	59	1840	48
Italy.....	23	1816	30

There is little doubt that excessive consumption of meat constitutes a grave and unnecessary economic waste. The increased cost of food falls most heavily on this item of indulgence and its ever-increasing price follows as much the law of supply and demand as does the price of champagne, and, for the same reason, the price of flavor for those who have the price. It is part of the spirit that demands the motor car, the luxuries of life as well as its necessities.

As regards the utility of carbohydrate and fat in the food, one may especially attribute to them a value as fuel. They are oxidized in the body and keep the body warm and when work is accomplished they furnish the energy with which to perform it.

The carbohydrates consist in sugars and starches. The latter are convertible into sugars in intestinal digestion. One can speak of cornstarch as equivalent to the sugar into which it is convertible. Cane sugar has essentially the same value in nutrition as starch. The two belong to the same group and yet are not identical, and so the layman must learn the cumbersome term carbohydrate as the common name for the physiologically identical sugars and starches.

The great staple starchy foods include rice, potatoes, bread, beans, macaroni and corn. These are the cheapest food fuels. They all contain protein but their principal constituent is starch, which when converted into sugar is as much a fuel for the body as gasoline is for the automobile.

Fat is taken in the food with most meats. It is largely consumed as lard and also as butter. Nuts contain 50 per cent. of their weight as fat. The fats are a far more costly fuel than the carbohydrates, although they serve a similar purpose in nutrition. The advantage of taking a diet which includes a mixture of carbohydrates and fats lies in the fact that the intestine is not called to excessive effort in caring for the digestion and absorption of a large quantity of a single food material, and that equivalent amounts of fat are less bulky than carbohydrates. The disadvantages of a large use of fat are, first, its original cost, and, second, the fact that its ingestion diminishes the intake of vegetables and hence the amount of cheap vegetable proteins, thereby making fat indirectly a still more expensive food.

There are important accessory factors to be discussed concerning food. These are the fibrous roughage of cellulose, the salts of the diet and the so-called vitamins.

Sylvester Graham used unbolted wheat flour with which to make Graham bread. The cellulose here produces a freer movement of the bowels. Of similar import is the use of spinach, cauliflower, lettuce, cabbage, asparagus and tomatoes. These substances have almost no fuel value, but they can be prepared to serve with large quantities of fats or oils, and they furthermore give flavor and variety to the fare of the table.

The salts of the food are extremely important. Thus, if calcium be withheld from the diet of experimental animals the bones become porous and finally

break. Such conditions are not found in human life, for the foods ingested always contain sufficient salts to replace those lost from the body. It has been found that when meats are oxidized they yield an acid ash, whereas vegetables usually yield an alkaline ash. It has been recently shown by Blatherwick that of all vegetables potatoes yield the greatest amount of alkaline ash for the use of the body, and that this alkali is most effective in dissolving and eliminating uric acid from the system. In the light of this, potatoes are highly desirable, not only in health, but also in the gouty condition. Yet one of the dietetic fads of the day is to eliminate potatoes from the bill of fare, a really absurd practice, always excepting the cases of those individuals who manifest personal repugnance to potatoes.

Finally, there is a class of substances which exists in minute quantities in some foods and little or none in others. This class is called that of the vitamins. Thus, individuals who live almost exclusively on polished rice acquire the disease of beriberi, and a similar monotonous diet of bread develops scurvy. A diet of bread and water does not maintain the strength of the organism and has been used as a disciplinary method. Minute quantities of vitamins are found, for example, in meat, in butter and in unpolished rice, but they are absent or deficient in polished rice, bread and lard. The vitamins are absolutely necessary for the proper harmonious maintenance and growth of the body. This statement should cause no alarm. There is no beriberi in the United States, for here rice does not ever form the dietary mainstay of the individual. There is practically no scurvy, although it has been known to occur in almshouses, where motives either of economy or graft have deprived the inmates of suitable food.

Summarizing, one can state that in the United States there is no protein, or salt or vitamin deficiency in the

habitual diet, and there is plenty of roughage in the form of cabbage, sauerkraut or other vegetable foods available to him that desires it.

#### THE QUANTITY OF FOOD

Generally speaking, the mass of food ingested serves two functions, the protein is of use in the maintenance and repair of the cell machinery, and the carbohydrate and fat furnish fuel to this machinery that the motions of life may continue. Protein given in excess also serves the purpose of fuel, as do carbohydrates and fat. In the oxidative destruction of these materials in the body heat is liberated. When 1 gram of fat is burned sufficient heat is produced to raise the temperature of 1 liter of water  $9.3^{\circ}$  C. ( $= 16.5^{\circ}$  F.). Since the unit of heat measurement or the *calorie* is that quantity of heat required to raise 1 liter of water  $1^{\circ}$  C., it follows that 9.3 calories of heat are set free whenever 1 gram of fat is oxidized. The heat liberated in the body when 1 gram of fat is oxidized is exactly the same as when it burns outside the body. The similar value for starch is 4.1 calories per gram. In the case of protein, 4.1 calories are liberated whenever a gram of this material is oxidized within the organism. When, therefore, protein is consumed in excess, the excess has no greater fuel value than an equal weight of starch. Here then are the fuel resources which keep the body warm, maintain the heart and respiration, and the activity of the other organs, and enable the muscles to perform work. Since every machine requires more fuel when it is active than when it is at rest, it follows that the greater the activity of the body the greater will be the requirement for fuel.

The figures in Table 2 may be accepted as estimates of the fuel requirement of a man weighing 156 pounds (70 kilograms) during a twenty-four-hour period:<sup>1</sup>

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1. Lusk: The Fundamental Basis of Nutrition, Yale University Press, 1914.



It appears from this that that great class of human beings whose business it is to sit at their desks or to watch machinery, and who may walk to and from their work, require 2,500 calories. In their class are included writers, draughtsmen, tailors, physicians and other professional men, clerks, accountants, etc. Mental effort is accomplished without any increase in the quantity of energy required.

Individuals who stand at their work, such as bakers, dentists, car conductors, decorators and glass workers, require about 3,000 calories. If muscular labor be constant, more is required. Thus carpenters making tables and painters painting furniture require 3,300 calories. Farmers require 3,500 calories, stone masons 4,500, lumbermen 5,000 and over, and a man riding in a bicycle race during twenty-three hours requires 10,000 calories a day.

TABLE 2.—DAILY CALORIC REQUIREMENTS OF 156 POUND  
(70 K.) MAN

	Calories
Absolute rest in bed without food .....	1,680
Absolute rest in bed with food .....	1,840
Rest in bed 8 hours, sitting in a chair 16 hours, with food.....	2,168
Rest in bed 8 hours, sitting in a chair 14 hours, walking two hours, with food .....	2,488
Rest in bed 8 hours, sitting in a chair 14 hours, vigorous exer- cise 2 hours, with food .....	2,982

These are facts which at the present time are scarcely open to dispute. The sorrowful part of it is that outside a narrow circle they are practically unknown. Physicians sometimes starve their patients and the babies entrusted to their care, in blissful and childlike ignorance of what they are doing. The poor, 50 to 60 per cent. of whose income is spent for food, waste their money in the purchase of beautiful labels or relatively expensive and unnutritious foods. A publisher employing several thousand individuals says that his employees buy from choice the products advertised in his magazines. Children of the poor are sent to buy food for the family and the whole expenditure of half the

family's income is effected in an atmosphere of unfathomable ignorance. Yet if one seeks to help, one is informed that one must not meddle with the appetites, and the funny man of the newspaper makes a witticism on the subject of "highbrow" information.

In spite of the inevitable attitude of the humorous editor, it is well to remember the severity of the winter's cold, the lack of employment, the suffering of the poor, which create a situation very far from humorous.

How can relief be given? One suggestion is to sell 1,000 calories of food in a well-balanced ration as cheaply as possible. Beans are cheap. But you don't like beans. Does Professor X eat his own diet? If beans are not acceptable, then how about macaroni and spaghetti? The meal shown in Table 3 is made

TABLE 3.—COMPOSITION OF A RATION CONTAINING 1,000 CALORIES

	Ounces	Calories
Cooked beans.....	7 $\frac{3}{8}$	400
Pork.....	1	234
Bread.....	2 $\frac{1}{4}$	180
Butter.....	$\frac{1}{2}$	103
Milk.....	5	100
Coffee.....	5	...
Total.....		1,017

up of 1,000 calories and contains 16 per cent. of those calories in protein, one-sixth of the protein being in the form of animal proteins of Grade A, and the rest being in vegetable proteins. The remaining 84 per cent. of the calories are nearly equally divided between carbohydrate and fat.

The actual cost price of this meal of hot pork and beans, bread and butter and a cup of hot coffee and milk is 4 $\frac{1}{4}$  cents, excluding labor and rent, but including the coal used. The 2,500 calories required to maintain a man out of work on this diet would cost 10.6 cents a day, or \$38.70 a year. If such a thing as a "submerged tenth" really exists in this country it

would cost \$387,000,000 to feed 10,000,000 men for one year on this diet. The taxation in the United States, city, state and national, is said to be \$4,000,000,000 annually. Ten per cent. of this sum would feed with pork and beans, bread and butter, coffee and milk, 10,000,000 men who are out of work. A similar menu just as cheap can be based on spaghetti flavored with tomato or cheese. It is not argued that a diet based on the cheaper foods is a panacea for all the woes of the world. It is not argued that such diets are the equivalent of caviar, champagne and canvas back ducks, but it is argued that good wholesome simple food should be more available for mankind at a moderate price in hours of adversity and distress than is the case to-day. People should know how they can conserve their resources without detriment to their bodily welfare.

Passing to the consideration of the nutrition of the great mass of the people it seems probable that at the present time no more valuable data can be obtained than those which may be derived from a study of the various food portions sold by the Childs restaurant establishments which are situated in many cities throughout the country. The portions served are standardized, i. e., planned to be uniform in quantity and quality and the prices are the same in all the restaurants. Mr. F. C. Gephart has completed a notable analysis of 350 different portions as they are sold to guests at these establishments. The results of these analyses have been tabulated. Table 4 gives the cost of each food if that particular variety were alone made to furnish the 2,500 calories necessary for a man leading a sedentary life, to which is added the restaurant price of these 2,500 calories and the number of portions necessary to furnish them. Portions which contain 15 per cent. of protein calories or more have received a star. Portions which contain meat, fish, egg or milk proteins are preceded with the letter A,

indicating the presence of animal proteins. The material in this table is arranged in the order of the increasing price of the food. In Table 9 the name material is arranged in alphabetic order.

TABLE 4.—THE COST OF 2,500 CALORIES IN FOODS  
ARRANGED IN ORDER OF THEIR INCREASING PRICE

Note that when three portions furnish 2,500 calories, one portion affords a good meal. When nine portions furnish 2,500 calories, then three different portions should form the meal.

Name of Food	Nutritional Calories for Five Cents	Per Cent. in Bread and Butter	Cost of 2,500 Calories	No. of Orders to Make 2,500 Cal.
Napoleon .....	453.6	....	\$0.28	6
Crullers .....	444.0	....	.28	6
Cabinet pudding and vanilla sauce...	399.5	....	.31	6
Cocoanut pie .....	372.9	....	.34	7
*A—Roast beef sandwich with roll.....	357.8	....	.35	7
Bath buns .....	357.5	....	.35	7
Bread custard pudding.....	355.4	....	.35	7
Pineapple pie .....	347.4	....	.36	7
Corn muffins .....	342.2	....	.37	7
Apple pie .....	337.2	....	.37	7
New England pudding with vanilla sauce .....	330.7	....	.38	8
Chocolate spiced cakes.....	324.0	....	.39	8
Walnut layer cake with marshmal- low icing .....	323.2	....	.39	8
Milk crackers .....	317.1	....	.39	8
Bread pudding with vanilla sauce...	298.4	....	.42	8
Pumpkin pie .....	296.1	....	.42	8
A—Lamb croquettes and mashed pota- toes .....	291.4	29.5	.43	3
Coffee cake .....	290.2	....	.43	9
Rhubarb pie .....	286.3	....	.44	9
A—German meat cakes and French fried potatoes .....	284.5	27.2	.44	3
Old fashioned molasses cake.....	281.9	....	.44	9
Lemon pie .....	279.7	....	.45	9
*A—Vienna roast with French fried po- tatoes .....	278.3	29.7	.45	3
Butter cakes .....	278.0	....	.45	9
Minced ham sandwich.....	277.3	63.8	.45	9
Pork and Boston beans.....	276.6	27.1	.45	3
Cornmeal cakes with maple cane syrup .....	275.2	....	.45	5
A—Ham croquettes .....	263.1	32.7	.47	5
Cold rice pudding .....	263.1	....	.47	9
Ham sandwich with roll.....	261.8	....	.48	10
Banana layer cake.....	253.4	....	.49	10
*A—Creamed chipped beef on toast.....	249.2	....	.50	3
Cocoa .....	247.5	....	.50	10
*A—Roast beef cutlet with tomato sauce	246.5	38.4	.51	3
*A—German meat cakes with lyonnaise potatoes .....	246.4	....	.51	3
*A—Swiss cheese sandwich.....	244.0	59.6	.51	10
* —Boston baked beans.....	240.3	34.2	.52	5
A—Vienna roast, spaghetti and pota- toes .....	236.3	34.0	.53	4
Chocolate cornstarch with cream....	231.6	....	.54	11

\* Contains 15 per cent. or over of heat in protein. A contains the protein of meat, milk, eggs or cheese.



TABLE 4.—Continued

Name of Food	Nutritional Calories for Five Cents	Per Cent. in Bread and Butter	Cost of 2,500 Calories	No. of Orders to Make 2,500 Cal.
Wheat cakes with maple cane syrup	231.1	....	\$0.54	5
Milk crackers and milk.....	230.5	....	.54	5
*A—American cheese sandwich.....	230.2	....	.54	11
* —New York baked beans.....	229.7	35.5	.54	5
Hot corn bread.....	228.6	....	.55	6
*A—Country sausage.....	227.7	....	.55	11
Indian pudding with maple sauce....	227.2	....	.55	11
*A—Minced tongue sandwich with tea biscuits.....	225.6	....	.55	11
Cream roll.....	225.1	....	.55	11
A—Beef cakes with brown gravy and macaroni.....	224.8	35.1	.56	4
* —New York beans, on the side.....	223.4	....	.56	11
Graham crackers.....	223.3	....	.56	11
A—Broiled ham.....	223.1	....	.56	3
A—Roast beef hash, browned.....	222.1	36.9	.56	4
Oyster pie.....	220.4	....	.57	4
*A—Minced chicken sandwich.....	220.3	73.0	.57	11
Apple tapioca pudding.....	217.2	....	.57	11
Potato salad.....	217.0	38.4	.58	6
Chocolate layer cake.....	212.4	....	.59	12
*A—Breaded veal cutlet and tomato sauce	211.9	33.0	.59	3
Egg plant fried in butter.....	208.7	....	.60	4
Buckwheat cakes with maple cane syrup.....	208.3	....	.60	6
A—Roast beef croquettes with macaroni	208.3	34.3	.60	4
A—Fried bacon with French fried pota- toes.....	208.1	....	.60	3
A—Sardine sandwich.....	207.4	....	.60	12
*A—Minced ham sandwich with olives....	206.8	....	.60	12
*A—Ham and New York beans.....	206.6	40.2	.61	4
Vanilla cornstarch with cream.....	206.5	....	.61	12
*A—Roast beef cutlet and mashed pota- toes.....	205.7	38.3	.61	4
A—Lamb cutlet and mashed potatoes..	205.4	36.9	.61	4
Cocanut cake.....	204.6	....	.61	12
Cream cheese walnut sandwich.....	201.5	....	.62	12
* —New York baked beans with tomato sauce.....	201.5	34.8	.62	6
A—Ham and Boston beans.....	201.3	44.6	.62	4
A—Liver and onions with French fried potatoes.....	200.1	....	.62	3
*A—Beef stew.....	199.8	35.3	.63	4
*A—Pork and New York beans.....	198.7	38.5	.63	4
*A—Ham sandwich.....	198.3	73.2	.63	13
Rice croquette with bacon.....	196.2	43.4	.64	4
Baked apple with cream.....	196.0	....	.64	6
A—Frankfurters and potato salad.....	195.9	42.5	.64	4
* —Baked beans with macaroni.....	195.8	....	.64	4
Cup of coffee (containing cream and sugar).....	195.2	....	.64	13
A—Mince pie.....	194.1	....	.64	6
*A—Lamb stew.....	193.6	39.6	.65	4
*A—Broiled salt mackerel with mashed potatoes.....	192.2	44.1	.65	3
Cherry pie.....	191.5	....	.65	7
Pound cake.....	191.5	....	.65	7
A—Chicken cutlet and mashed potatoes	191.2	57.6	.65	4
*A—Shredded wheat and milk.....	190.8	....	.66	7
Cream tapioca pudding.....	189.6	....	.66	13
Soda crackers and milk.....	188.6	....	.66	7
Strawberry pie.....	188.0	....	.66	7
Chocolate éclair.....	188.0	....	.67	13

TABLE 4.—Continued

Name of Food	Nutritional Calories for Five Cents	Per Cent. in Bread and Butter	Cost of 2,500 Calories	No. of Orders to Make 2,500 Cal.
*A—Baked lamb pie (individual).....	187.7	46.6	\$0.67	4
*A—Corned beef sandwich.....	186.0	79.1	.67	13
A—Broiled bacon .....	185.3	34.3	.67	3
Rice cakes with maple cane syrup...	185.6	....	.67	4
A—Cold ham .....	183.5	39.6	.68	5
A—Roast beef croquettes and spaghetti	183.0	....	.68	5
*A—Chipped beef and scrambled egg....	182.7	36.4	.68	3
A—Minced ham with scrambled eggs....	181.9	35.5	.69	3
Peach pie .....	181.8	....	.69	7
A—Baked macaroni and cheese.....	181.6	40.5	.69	7
Huckleberry pie .....	179.7	....	.70	7
French toast with maple cane syrup	179.2	....	.70	4
*A—Corned beef and New York beans...	179.1	....	.70	5
Blackberry pie .....	177.9	....	.70	7
*A—Veal pot pie with dumplings.....	174.9	47.9	.71	5
*A—Creamed codfish on toast.....	174.7	46.3	.72	5
A—Vienna roast with stewed tomatoes	174.7	31.3	.72	5
*A—Tomato omelet .....	174.4	55.3	.72	4
A—Small oyster fry.....	174.2	36.6	.72	4
Hot rice with cream.....	173.3	....	.72	5
A—Plain oyster fry with bacon.....	171.8	32.0	.73	4
*A—Hamburger steak .....	170.5	29.9	.73	4
A—Corned beef hash, browned in pan..	170.3	46.1	.73	5
A—Corned beef hash, steamed.....	169.3	55.8	.74	5
Cream .....	168.7	....	.74	5
*A—Chicken wings on toast.....	168.2	38.2	.74	4
A—Country sausage and French fried potatoes .....	167.2	....	.75	5
*A—Corned beef and Boston beans.....	166.7	48.6	.75	5
*A—Two fried eggs.....	166.0	58.1	.75	5
*A—Ham omelet .....	165.6	35.5	.75	4
*A—Plain omelet .....	165.5	47.2	.76	5
*A—Fried liver and mashed potatoes....	164.8	51.7	.76	5
*A—Creamed chipped beef.....	163.7	51.7	.76	5
A—Large oyster fry.....	161.8	35.1	.77	3
Apple fritters with fruit sauce.....	161.7	....	.77	8
A—Fish cakes with tomato sauce.....	161.2	54.4	.78	5
French fried potatoes, extra order...	160.4	....	.78	8
Chocolate cornstarch with whipped cream .....	159.6	....	.78	16
Shredded wheat and cream.....	159.5	....	.78	6
A—Chicken croquette and French fried potatoes .....	159.3	....	.78	5
*A—Corned beef hash with poached egg	158.9	35.5	.79	4
*A—Ham and eggs.....	158.3	29.8	.79	3
A—Ham and potato salad.....	158.1	31.1	.79	4
*A—Baked shad and dressing.....	157.7	....	.79	4
*A—Hamburger steak with Spanish sauce	157.4	33.7	.79	4
Charlotte russe .....	156.5	....	.80	16
*A—Creamed eggs on toast.....	155.6	37.6	.80	4
A—Bacon and eggs.....	155.3	29.8	.81	3
Strawberry fruit jelly with whipped cream .....	154.9	....	.81	16
*A—Buckwheat cakes with country sausage .....	154.7	....	.81	4
A—Oyster sandwich .....	153.8	46.3	.81	8
*A—Chicken giblets on toast.....	153.0	41.5	.82	4
Hot rice with butter.....	152.6	....	.82	8
Pimento olive cheese sandwich.....	152.3	87.0	.82	16
*A—Liver and bacon with lyonnaise po- tatoes .....	151.0	29.7	.83	3
*A—Corned beef hash, browned, with two poached eggs.....	150.1	37.7	.83	3

TABLE 4.—Continued

Name of Food	Nutritional Calories for Five Cents	Per Cent. in Bread and Butter	Cost of 2,500 Calories	No. of Orders to Make 2,500 Cal.
Buttered toast .....	149.7	....	\$0.83	8
*A—Liver and bacon.....	149.4	36.4	.84	3
*A—Chicken hash .....	146.9	46.3	.85	6
A—Two scrambled eggs.....	146.3	52.6	.85	6
*A—Milk .....	145.3	....	.86	9
Apple sauce with whipped cream....	144.2	....	.87	17
Hot rice with poached egg.....	143.3	49.8	.87	6
*A—Corned beef with potato salad.....	143.1	53.1	.87	6
Fish cakes with poached egg.....	141.8	53.2	.88	4
*A—Cold roast beef.....	140.1	63.4	.89	6
A—Hot rice with milk.....	139.6	....	.90	9
*A—Small steak .....	138.0	28.3	.91	3
Baked apple .....	136.8	....	.91	18
Baked apple with ice cream.....	136.0	....	.92	9
A—Two lamb chops.....	135.3	....	.92	3
A—Chicken salad sandwich.....	134.7	....	.93	9
*A—Corned beef hash, steamed, with poached egg .....	133.8	44.3	.93	5
* —Boston beans on side.....	133.7	....	.94	19
Tomato sandwich .....	133.6	96.5	.94	19
A—Lamb chops, breaded, with mashed potatoes .....	132.7	48.6	.94	5
*A—Maple flakes with milk.....	132.6	....	.94	9
*A—Corned beef .....	132.4	45.8	.94	6
*A—Bulgarzoon .....	132.1	....	.95	19
A—Spanish omelet with French fried potatoes .....	132.1	39.8	.95	4
Baked apple custard with whipped cream .....	131.5	....	.95	10
Boiled rice, side order.....	130.8	....	.96	19
*A—Fried egg sandwich.....	129.6	64.7	.96	10
*A—Onion omelet .....	129.1	27.0	.97	5
*A—Baked weak fish with dressing.....	128.9	45.0	.97	5
*A—Sirloin steak .....	128.1	20.1	.98	2
Fresh cooked oatmeal with cream...	127.7	....	.98	6
*A—Fish cakes with macaroni.....	126.9	....	.99	5
Sliced bananas with cream.....	126.2	....	.99	10
* —Macaroni, side order.....	125.8	....	.99	20
*A—Roast sirloin of beef and mashed potatoes .....	124.9	44.8	1.00	5
A—Tomato omelet with potatoes.....	121.9	42.9	1.03	7
*A—Two boiled eggs.....	121.6	....	1.03	7
*A—Fish cakes with spaghetti.....	120.6	54.0	1.04	5
*A—Macaroni omelet and tomato sauce	119.1	38.5	1.05	4
*A—Small steak with onions.....	118.3	25.8	1.06	3
*A—Fish cake sandwich.....	117.8	....	1.06	11
*A—Egg salad .....	116.0	54.9	1.08	5
*A—Parsley omelet .....	115.2	53.1	1.09	5
Green split pea soup.....	114.1	59.4	1.10	11
Vanilla ice cream.....	113.8	....	1.10	11
*A—Tenderloin steak with onions.....	113.3	24.5	1.10	2
*A—Cornflakes and milk.....	111.1	....	1.12	11
Strawberry tart .....	111.0	....	1.13	11
*A—Tuna fish salad.....	110.9	43.0	1.13	5
*A—Sirloin steak with onions.....	110.0	20.1	1.14	2
Pineapple fruit jelly with whipped cream .....	109.8	....	1.14	23
*A—Cup custard .....	109.5	....	1.14	11
*A—Roast beef with potato salad.....	107.4	43.9	1.16	5
*A—Tenderloin steak .....	106.3	19.8	1.18	2
A—Milk toast .....	105.6	....	1.18	8
Strawberry cornstarch with whipped cream .....	102.2	....	1.22	24

TABLE 4.—Continued

Name of Food	Nutritional Calories for Five Cents	Per Cent. in Bread and Butter	Cost of 2,500 Calories	No. of Orders to Make 2,500 Cal.
Strawberry ice cream.....	102.1	....	\$1.22	12
*A—Clam chowder .....	100.6	....	1.24	6
* —Chicken soup .....	100.4	49.5	1.24	8
*A—Crab meat salad.....	99.5	68.1	1.26	6
Vegetable soup .....	98.1	79.6	1.27	13
Stewed rhubarb .....	93.9	....	1.33	27
*A—Creamed chicken on toast.....	92.9	37.5	1.35	7
Strawberries with cream.....	91.9	....	1.36	9
Strawberry short cake.....	91.8	....	1.36	9
*A—Chicken omelet .....	90.8	32.1	1.38	6
*A—Deviled crab .....	90.7	64.1	1.38	7
Sliced bananas .....	89.9	....	1.39	28
*A—Spaghetti and cheese.....	88.0	....	1.42	14
*A—Fried ham .....	86.8	49.6	1.44	6
A—Minced chicken sandwich with let- tuce .....	86.3	....	1.45	15
* —Bean soup with croutons.....	84.4	....	1.48	15
*A—Hot roast beef sandwich.....	81.5	....	1.53	10
*A—Club sandwich .....	81.4	....	1.54	6
*A—Sliced chicken sandwich.....	78.1	....	1.60	16
*A—Poached eggs on toast.....	65.6	....	1.91	10
Strawberries with ice cream.....	65.0	....	1.92	13
* —Cream of wheat.....	63.0	....	1.98	20
Blackberries and cream.....	56.5	....	2.21	22
Stewed corn .....	52.5	....	2.38	48
* —Creamed asparagus on toast.....	49.2	....	2.54	13
Watermelon .....	39.4	....	3.17	20
* —Tomato soup with rice.....	36.6	....	3.42	34
Sliced pineapple .....	35.3	....	3.54	71
Grape fruit .....	25.8	....	4.85	32
*A—Raw oysters .....	18.6	....	6.72	45
Sliced tomatoes with lettuce.....	16.6	....	7.53	50
* —Sliced tomatoes .....	15.2	....	8.20	82
Tomatoes and lettuce with dressing..	13.5	....	9.26	47
Cantaloupe .....	12.1	....	10.33	69
Champagne† .....	8.6	....	14.53	7

† Not purchased in the restaurant.

It appears that fourteen different orders yield enough food fuel for one day at a cost of less than 40 cents, or less than \$145 per annum. Of these the roast beef sandwich made as a roll is conspicuous for cheapness.

Thirty-three different portions may yield the total energy requirement of 2,500 calories at a cost of less than 50 cents per day.

Suppose a restaurant be established with these thirty-three varieties only, and the consumer arranged his dietary so that he paid an average price of 40 cents for 2,500 calories, it would cost him \$145 per annum



for his food. If it be a fair division of one's income to expend one-fourth for rent, one-fourth for clothes, one-fourth for food and one-fourth for extras, then a single man may live at a Childs restaurant when his income is \$50 a month, of which he spends \$12.50 for food if he restricts himself to those thirty-three varieties. As a married man he would require \$100 a month to maintain himself and his wife under similar circumstances.

Passing to food of a higher cost, it appears that thirty-two portions yield 2,500 calories at a cost of between 51 and 60 cents and here portions containing meat predominate.

There are forty-two varieties of foods which yield 2,500 calories between 61 and 70 cents and thirty-three which cost between 71 and 80 cents. At this latter level of cost orders for eggs such as fried eggs and creamed eggs on toast begin to appear.

Twenty varieties yield 2,500 calories at a cost of between 81 and 90 cents and twenty-four varieties cost between 91 cents and \$1.00. The sirloin steak appears at the level of 91 cents.

This gives a choice of 184 dishes which yield 2,500 calories at a maximum daily cost of \$1.00.

There are fifty-five varieties of food which cost more than \$1.00 per 2,500 calories. The cost rises rapidly. Seven orders of two boiled eggs (with buttered toast) costing \$1.03 for 2,500 calories stand out in their extravagance, but this is outdone by nine orders of two poached eggs on toast costing \$1.91 for the day's requirement. The portion of spaghetti with cheese is certainly overpriced, and were the service to an Italian clientele would not be so costly.

The greatest wonder appears in the cost of the tomato portions. Tomatoes with lettuce and dressing cost over \$9.00 for 2,500 calories, nearly as much as cantaloupe at \$10.00, while champagne (bought out-

side the restaurant at \$4.00 a quart) costs \$14.00 for 2,500 calories.

The mystery of tomatoes is baffling. A can of tomatoes is little else than flavored water. The popularity of the tomato probably depends on its flavor and its color. A painter wishing to sell a landscape puts a figure with a red cloak in the center. It is an ancient device. In like manner, a restaurant puts a few lettuce leaves on a plate with a red tomato in the middle, covers it with a little dressing and gets a large price. It is the work of an artist for a connoisseur.

To indicate the practical value to which this work may be put, the following selected menus have been arranged. They give the cost and caloric content of inexpensive dishes which may be ordered at the restaurant and which provide for three meals a day during a week for a man of average weight. Only the morning cup of coffee occurs more than once.

TABLE 5.—SELECTED MENUS

	Cost, Cents	Cal- ories
<b>MONDAY</b>		
Breakfast:		
Coffee (with milk and sugar).....	5	195
Hot corn muffins.....	5	453
Lunch:		
*A—Roast beef sandwich and roll.....	5	357
Crullers .....	5	444
Dinner:		
*A—Vienna roast, fried potatoes, bread and butter	15	834
Cocoanut pie .....	5	872
Total .....	40	2,655
<b>TUESDAY</b>		
Breakfast:		
Coffee (with milk and sugar).....	5	195
*A—Chipped beef and scrambled eggs.....	20	728
Lunch:		
*A—Roast beef cutlet, tomato sauce, fried pota- toes, bread and butter.....	15	738
Dinner:		
A—Lamb croquettes and mashed potatoes, bread and butter .....	15	874
Apple pie .....	5	177
Total .....	60	2,712

TABLE 5.—Continued

	Cost, Cents	Cal- ories
<b>WEDNESDAY</b>		
Breakfast:		
Coffee (with milk and sugar).....	5	195
Boston pork and beans, bread and butter.....	10	480
Butter cakes .....	5	278
Lunch:		
*A—German meat cakes with lyonnalse potatoes, bread and butter.....	15	738
Dinner:		
A—Roast beef hash, browned, bread and butter..	15	666
Pumpkin pie .....	5	296
Total .....	55	2,453
<b>THURSDAY</b>		
Breakfast:		
Coffee (with milk and sugar).....	5	195
Bath buns .....	5	357
*A—Country sausage .....	5	257
Lunch:		
A—Vienna roast, spaghetti, potatoes, bread and butter .....	15	708
A—Swiss cheese sandwich.....	5	244
Dinner:		
A—Roast beef croquettes, macaroni, mashed pota- toes and bread and butter .. .. .	15	624
Cold rice pudding.....	5	263
Total .....	55	2,648
<b>FRIDAY</b>		
Breakfast:		
Coffee (with milk and sugar).....	5	195
A—Broiled ham with bread and potatoes.....	20	892
Lunch:		
A—Beef cakes, brown gravy and macaroni.....	15	774
Dinner:		
A—Ham croquettes with mashed potatoes.....	10	526
Napoleon .....	5	453
Total .....	55	2,840
<b>SATURDAY</b>		
Breakfast:		
Coffee (with milk and sugar).....	5	195
Corn meal cakes and maple syrup.....	10	550
Lunch:		
A—Roast beef hash (browned), bread and butter..	15	666
Cup of cocoa.....	5	247
Dinner:		
*A—Roast beef cutlet and mashed potatoes, bread and butter .....	15	617
Bread custard pudding.....	5	355
Total .....	55	2,630

TABLE 5.—Continued

	Cost, Cents	Cal- ories
<b>SUNDAY</b>		
Breakfast:		
Coffee (with milk and sugar).....	5	195
*A—Creamed chipped beef on toast, rolls and butter .....	15	747
Dinner:		
*A—Breaded veal cutlet, tomato sauce, potatoes, bread and butter.....	20	847
Mince pie .....	10	388
Supper:		
Oyster pie .....	15	660
Cabinet pudding and vanilla sauce.....	5	399
Total .....	70	3,236

<b>SUMMARY</b>		Cost in Cents	Cal- ories
Monday.....		40	2,655
Tuesday.....		60	2,712
Wednesday.....		55	2,453
Thursday.....		55	2,648
Friday.....		55	2,840
Saturday.....		55	2,630
Sunday.....		70	3,236
Per week.....		\$ 3.90	19,174
Per diem.....		0.56	2,739
Per month.....		16.80	

Individual income appropriate to this expenditure is \$67.20 per month.

At Bellevue Hospital, New York, in 1912, the cost of food from the market, that is, of uncooked food, was 25 cents daily for 3,200 calories for each person in the establishment; at the Municipal Lodging House during 1911 the cost was 13 cents daily for 2,700 calories per person.

When one considers that Childs restaurant pays for service and for expensive ground floor rental in the busiest parts of New York City, surely food at the cost outlined above is not expensive. But this menu is laboratory made, calculated from the scientific standpoint and from the standpoint of food economics. The restaurant in question could easily give this information on its menu card. It would have immense educational influence were it to do so.



In a few selected portions Mr. Gephart has estimated the retail market value of materials entering into the portions sold and these are revealed in Table 6.

It is evident that the actual cost of these standard portions is about half to one-third their cost in the restaurant. The housewife who knows how to buy the essential ingredients, and especially how to cook them, is an economic factor of prime importance in the home. Of such stuff is the science of food economics.

TABLE 6.—COST TABLE

Ham and Eggs, 25 Cents		Cents	Plain Omelet, 15 Cents		Cents
2	Eggs.....	6.66	2	Eggs.....	6.66
3½ oz.	Ham.....	4.40	3	Slices bread.....	0.45
3	Slices bread.....	0.45	10 gm.	Butter.....	0.89
10 gm.	Butter.....	0.89		500 calories.....	8.00
2½ oz.	Potatoes.....	0.04			
	800 calories.....	12.44			
Bacon and Eggs, 25 Cents		Cents	Tenderloin Steak, 55 Cents		Cents
2	Eggs.....	6.66	9½ oz.	Steak.....	17.30
1 oz.	Bacon.....	3.72	3	Slices bread.....	0.45
3	Slices bread.....	0.45	10 gm.	Butter.....	0.89
10 gm.	Butter.....	0.89	2½ oz.	Potatoes.....	0.04
2½ oz.	Potatoes.....	0.04		1,300 calories.....	18.68
	800 calories.....	11.76			
			Ham Sandwich, 5 Cents		Cents
			½ oz.	Ham.....	0.70
			2	Slices bread.....	0.30
			10 gm.	Butter.....	0.89
				200 calories.....	1.89

Mr. Gephart's work is the first extended investigation of its kind. It would be wise if the public could be better informed regarding the caloric value of foods which it purchases. It would be of vast significance if the barrel of flour, the can of lard, the pot of beans or the package of breakfast food could be labeled with the caloric content of the particular unit of sale.

The question would not then be asked, would Professor X eat his own diet? But the individual could then ask himself, am I sufficiently well-to-do to be careless of what I spend for food? And, can I spend less with equal profit and as great satisfaction?



# THE COST OF READY-TO-SERVE FOODS IN NEW YORK CITY, BASED ON THEIR ENERGY CONTENT PER UNIT OF PRICE

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## II. DESCRIPTION OF METHODS

At the suggestion of Dr. E. F. Du Bois and with the earnest cooperation of Professor Lusk, an investigation of the food value of the different portions or "orders" of food served in the Childs restaurants or stores in New York City was undertaken during the spring and summer of 1913, for the purpose of determining the actual energy value of the different orders, that they might all be reduced to a common unit for comparison of their relative cost from the nutritional standpoint. The above named chain of stores was chosen because it was thought that they were probably the most representative of their kind in the city and because they undoubtedly serve a great mass of people. In this manner it was hoped to obtain valuable data concerning the composition and energy content of the various kinds of food that are actually chosen by the people for consumption.

Especial acknowledgment is due Mr. Rudolph H. Harries, whose painstaking accuracy has been of valuable service in the accomplishment of the work.

Atwater and Bryant afforded the first real stimulus to a clear understanding of the composition and nutritive values of American foods when they compiled the reliable data that had been previously published in

this country, together with data collected by themselves after numerous analyses, and published it entire in the form of a government bulletin entitled "The Chemical Composition of American Food Materials."

Prior to the appearance of this work and the numerous other works incorporated therein, almost all of our information came from abroad, and it is obvious that its application must necessarily have been limited when applied to American materials. The tables of Atwater and Bryant contained almost all the information one could ask regarding the composition of foods purchased on the open market, both cooked and oftentimes uncooked, the percentages of moisture, protein, fat, carbohydrate and ash being included, and, lastly, but of great importance, the calorific values per pound of material.

From a persual of these tables, however, one cannot learn the quantities of the various articles that are ordinarily considered a portion, nor can one learn the cost of the same nor the auxiliaries that are usually served in what would constitute an order. When the composition of a foodstuff is compared before and after cooking quite a few changes may be noted, not only those brought about by the process of cooking, such as the coagulation of protein, the solution of several ingredients in water, either wholly or in part, or the partial loss due to the decomposition of fat, but also the changes in the food value due to the addition of auxiliary materials, such as fat, flour, sugar, etc., to say nothing of salt, pepper, and various spices and flavors, thereby presenting a much different composition when ready for consumption than when purchased or prepared for cooking.

With a hope of determining the actual values for foods prepared for immediate consumption, this investigation was undertaken.

In the City of New York there are forty-six (46) Childs restaurants all dispensing foods prepared at

the commissary department in a systematic way, the only essential divergence being in a few orders that are prepared in the individual restaurants. Bills of fare are not identical in the several restaurants, some present a greater variety than others, but as a whole they may be considered as emanating from one large restaurant. When these points were clearly established, a plan of collecting samples was finally decided upon. It was found that it was possible to secure bills of fare in advance, in some cases many days in advance, so that we were able to compare the articles served at the different places and formulate a list of foods to be secured to complete as far as possible a collection of all orders served. It is a common practice in these restaurants to serve orders to be taken out, the only requisite being that a deposit of five or ten cents be paid on each dish and refunded at the time the dishes are returned to the restaurant. This was the plan followed, and as far as we know, all samples were collected without the knowledge of the management. Every restaurant at that time in the city was visited, at least one order secured, often more than one, and after the whole field had been covered, our efforts were concentrated on those restaurants that we considered the most representative of the company, and in these few places many duplications of the more popular orders were procured. Several orders, usually those which could be most easily transported, were secured from seventeen (17) restaurants outside of the city, but as these samples showed no material differences from those purchased in New York City, it was decided to enter them in one general table.

In all, approximately three hundred and fifty (350) orders were collected and analyzed. These do not represent the entire offering of the restaurants, but practically everything. In quite a few instances we noticed an article that we were unable at a later date



to secure. We were careful not to purchase an article until the season for such was well established, attempting in this way to secure such things at their usual dispensing prices, and not at the price that they command on their first appearance. Unusual courtesies was shown in practically all the restaurants visited, in several instances care was even taken to furnish us with salt and pepper in separate packets.

When the samples were received at the laboratory, serial numbers were assigned, the several ingredients were weighed individually (when possible), the entire order transferred to a glass or porcelain container, dried either in a vacuum desiccator over sulphuric acid, or, in the case of orders containing much water, on the steam bath, allowed to remain in contact with the air for several hours, weighed, passed through a food chopper several times until they were uniform, and when low in fat finally meshed and bottled for analysis. The analysis consisted in the determination of moisture, which was done by weighing two or three grams of the material into a small lead bottle cap, such as is used in the trade for crimping the heads of catsup bottles and the like, placing the cap and contents in a vacuum desiccator over sulphuric acid where, with frequent agitation, it was allowed to remain for two weeks, after which it was removed, reweighed, folded, placed in an extraction cone and extracted with anhydrous ether in a Soxhlet extractor for two days, the ether removed, and the residue weighed as fat in the usual way. The protein was determined by the well-known method of Kjeldahl; the heat combustion in the Riche bomb calorimeter (*Journal American Chemical Society*, xxxv, No. 11, 1913).

Inasmuch as the first practical application of this apparatus was made in this work, and also because the apparatus differs somewhat from all other bomb calorimeters, it does not seem out of place to give

a very brief description of it here. In calorimetric work the amount of heat liberated by a given weight of substance burned in an excess of oxygen, is measured. In this particular type of apparatus this measurement is effected with the aid of a vacuum cup through which there has been found to be no measurable radiation of heat. The weighed sample is placed in the bomb, the bomb charged with oxygen at about thirty atmospheres pressure, immersed in the weighed water and when the temperature of the system has become constant the sample is fired. The ignition is brought about by overloading a four ampere fuse wire by the use of a small platinum wire attached to the supports immediately above the sample within the bomb. Two small linen threads attached to the platinum wire affords contact with the sample and assures its ignition. It is obvious that the use of this method insures constancy in the heat of ignition. The maximum thermometer reading is recorded in about five minutes after ignition. The calculation is indeed simple, the rise in temperature in degrees multiplied by the hydrothermal equivalent of the apparatus, minus the heat of ignition and that liberated by the nitric acid formed during the combustion, gives the calories of heat liberated in the combustion of the sample taken. Four combustions were regularly completed in an hour's time, requiring the services of only one person and necessitating the reading of a single thermometer. This apparatus is extremely accurate.

Carbohydrate was estimated by difference in heat as measured in the bomb and that calculated from the sum of the heat of combustion of the protein and fat as found by analysis, using the factor of Stohman for the calculation of the mean heat of combustion of protein in the bomb as being 5.71 calories per gram and that of fat as 9.3 calories per gram. This means of estimating carbohydrate has never before been employed, as far as we are aware, and we feel that

it is especially valuable in the analysis of materials containing large amounts of fat and protein, both of which must be removed before attempting the determination of starch by the usual methods. This procedure gives total carbohydrates, fiber being included, but in almost all of our samples the amount of fiber was negligible, with the possible exception of fruits and vegetables, which were few in number.

Preservatives and adulterations were tested for in all samples of milk and cream, with negative results.

### III. KEY TO TABLE 7

*Column 1.*—Shows the name of the order or kinds of food which we have classified alphabetically for convenience. (In all cases in which duplications of orders were made, the number of orders from which the mean values were calculated is indicated, as well as the percentage variations of the several ingredients, both above and below the mean, and the percentage variations above and below the mean for the several calculated and determined factors are also shown in the respective columns to which they refer.)

*Column 2.*—The constituent parts of the order, as far as it was possible to separate them. (Bread was usually spread with butter.)

*Column 3.*—The weights in grams of the constituents as they were received in the laboratory.

*Column 4.*—The cost of the order.

*Column 5.*—The gross heat of combustion of the order in large calories as measured in the bomb.

*Column 6.*—The heat of combustion in large calories that the protein fraction of the order furnishes in the bomb.

*Column 7.*—The heat of combustion in large calories that the protein fraction of the order produces in the body, the so-called protein nutritional calories.

*Column 8.*—The heat of combustion in large calories that the fat fraction of the order furnishes in the bomb as well as that produced in the body.

*Column 9.*—The heat of combustion in large calories that the carbohydrate fraction of the order furnishes in the bomb as well as that produced in the body, with the possible exceptions previously noted.

*Column 10.*—The gross heat of combustion of the order in large calories as measured by the bomb for that fractional part of the order purchasable for 5 cents, or  $\frac{5}{4} \times .05$ .



*Column 11.*—The total nutritional calories contained in that fractional part of the order purchasable for 5 cents or  $\frac{7 + 8 + 9}{4} \times .05$  or  $\frac{5 - (6-7)}{4} \times .05$ .

*Column 12.*—The percentage of the total nutritional calories of the order furnished by the so-called protein nutritional calories or  $\frac{7}{5 - (6-7)} \times 100$ .

*Column 13.*—The percentage of the total nutritional calories of the order furnished by the fat fraction either in the bomb or body, or  $\frac{8}{5 - (6-7)} \times 100$ .

*Column 14.*—The percentage of the total nutritional calories of the order furnished by the carbohydrate fraction either in the bomb or body (except as previously noted), or  $\frac{9}{5 - (6-7)} \times 100$ .

*Column 15.*—The percentage of the total nutritional calories of the order furnished by the bread and butter contained therein. This factor is only an approximation, because of the fact that it is based on the assumption that in all orders containing bread and butter, the bread and butter bore the same ratio to each other as was the case in the sample analyzed to establish this factor, which is probably not true in all cases. As previously stated, the bread in nearly every case was spread with butter, the quantity of the latter appearing to be the same throughout.

*Column 16.*—Classification of the orders.

We have classified these orders into eleven classes in order that we might be able to strike a mean for each class, namely, meats (steaks, chops, ham and eggs, hash, etc.), pastry and dessert, eggs, sandwiches, fruits, soups, dairy dishes, beans, oysters, salads and miscellaneous.

In making this classification we have classed several orders in two different classes, as, corned beef and beans is classed both as meat and beans, etc., because of the fact that the classification is arbitrary and does not signify that the order consisted wholly of meat or beans, but in a few instances this is actually the case.

IV.—TABLE 7.—ANALYSES OF

No.	Name of Food	Constituents		Cost, Dol- lars	Calories in Sample	
		Food	Gm.		Total Bomb	Pro- tein Bomb
1	Apple, baked .....	Total sample .....	114.9	\$0.05	137.2	1.4
2	Apple, baked (with cream).....	Total sample .....	228.8	.10	393.7	5.8
3	Apple, baked (with ice cream).....	Total sample .....	206.3	.10	275.5	12.5
4	Apple fritters with fruit sauce.....	Total sample .....	155.9	.10	330.8	26.3
5	Apple sauce with whipped cream.....	Total sample .....	154.7	.05	145.3	3.3
6	Asparagus, creamed on toast.....	Toast .....	35.2	.20	209.6	45.3
		Asparagus .....	210.6			
7	Bacon, broiled .....	Bacon .....	40.7	.20	760.8	70.2
		Potatoes .....	70.2			
		Bread plus butter..	74.2			
8	Bacon and eggs.....	Bacon .....	32.7	.25	818.1	148.1
		Eggs .....	74.8			
		Potatoes .....	68.5			
		Bread plus butter..	67.6			
9	Bacon, fried, with French fried pota- toes	Bacon .....	44.3	.20	858.9	94.1
		Potatoes .....	51.8			
		Rolls .....	84.9			
		Butter .....	11.4			
10	Bananas, sliced .....	Total sample (edi- ble) .....	104.2	.05	91.5	5.6
11	Bananas, sliced with cream.....	Bananas (edible) ..	123.9	.10	256.6	15.2
		Cream .....	61.5			
12	Beans, baked with macaroni.....	Beans .....	140.8	.15	623.1	126.9
		Macaroni .....	119.2			
13	Beans, Boston baked (average 6 or- ders)	Beans (average) ..	207.2	.10	509.4	102.1
		Per cent. variation from average ....	+12.3%	.....	+26.7%	+15.6%
		Bread and butter (average) .....	-15.6%	.....	-22.6%	-13.6%
		Per cent. variation from average ....	48.0			
		Per cent. variation from average ....	+14.4%			
		Per cent. variation from average ....	-9.0%			
14	Beans, Boston (on the side).....	Total sample .....	77.0	.05	143.2	33.5
15	Beans, New York baked (average 7 orders)	Beans (average) ..	191.2	.10	439.8	108.1
		Per cent. variation from average ....	+33.2%	.....	+30.4%	+15.6%
		Bread and butter (average) .....	-28.7%	.....	-26.0%	-24.2%
		Per cent. variation from average ....	47.7			
		Per cent. variation from average ....	+10.0%			
		Per cent. variation from average ....	-11.0%			
16	Beans, New York (on the side).....	Total sample .....	130.9	.05	240.0	59.1
17	Beans, New York baked, with tomato sauce	Beans and sauce..	197.8	.10	430.5	97.5
		Bread and butter..	40.9			
18	Beef cakes with brown gravy and macaroni	Cakes, macaroni and gravy .....	339.5	.15	709.7	125.2
		Bread and butter..	69.2			
19	Beef, chipped and scrambled eggs....	Beef and eggs.....	135.4	.20	779.3	172.2
		Potatoes .....	61.4			
		Bread and butter..	77.8			
20	Beef, corned .....	Beef .....	68.3	.15	436.2	138.2
		Bread and butter..	53.2			
21	Beef, corned, and Boston beans.....	Beef .....	40.6	.15	538.4	135.4
		Beans .....	102.6			
		Bread and butter..	71.1			
22	Beef, corned, and New York beans...	Beef .....	96.8 ?	.15	577.6	142.6
		Beans .....	156.3			
		Bread and butter..	98.6 ?			
23	Beef, corned, hash with poached egg	Beef hash .....	134.8	.20	680.0	157.3
		Egg .....	42.3			
		Bread and butter..	65.9			
24	Beef, corned, hash browned in pan....	Hash .....	123.9	.15	538.3	97.5
		Bread and butter..	68.9			
25	Beef, corned, hash browned with two poached eggs	Hash .....	157.1	.25	795.5	158.7
		Bread and butter..	82.6			
		Eggs .....	63.1			
26	Beef, corned, hash (steamed).....	Hash .....	149.4	.15	533.8	91.5
		Bread and butter..	82.3			

242 READY-TO-SERVE FOODS

Calories in Sample			Calories for 5 Cents		Distribution of Heat			Nutritional Calories from Bread and Butter	Classification	No.
Protein Nutritional	Fat	Carbo-hydrate	Total Bomb	Total Nutritional	Protein	Fat	Carbo-hydrate			
1.0	1.2	134.6	137.2	136.8	%	%	%	%	Fruit.....	1
4.1	11.0	376.9	196.9	196.0	0.7	0.9	98.4	....	Fruit.....	2
9.0	50.3	212.7	137.8	136.0	1.0	2.8	96.2	....	Fruit.....	3
18.9	129.4	175.1	165.4	161.7	3.3	18.5	78.2	....	Fruit.....	3
2.7	31.7	109.8	145.3	144.2	5.8	40.0	54.2	....	Miscellaneous.....	4
32.5	54.5	109.8	52.4	49.2	1.9	21.9	76.2	....	Fruit.....	5
					16.5	27.7	55.8	....	Miscellaneous.....	6
50.4	439.9	250.7	190.2	185.3	6.8	59.4	33.8	34.3	Meats.....	7
106.3	415.1	254.9	163.6	155.3	13.7	53.5	32.8	29.8	Meats.....	8
67.6	516.4	248.4	214.7	208.1	8.1	62.1	29.8	....	Meats.....	9
4.0	000.0	85.9	91.5	89.9	4.4	.....	95.6	....	Fruit.....	10
10.9	133.2	108.2	128.3	126.2	4.3	52.8	42.9	....	Fruit.....	11
91.1	104.4	391.8	207.7	195.8	17.7	66.8	15.5	....	Beans.....	12
73.3	141.5	265.8	254.7	240.3	15.5	28.2	56.3	34.2	Beans.....	13
.....	+83.5%	+21.0%	+26.7%	+28.0%	+17.4	+49.6	+19.7			
.....	-61.3%	-22.8%	-22.6%	-23.5%	-22.5	-47.2	-19.8			
24.0	29.8	79.9	143.2	133.7	18.0	22.3	59.7	....	Beans.....	14
77.7	112.1	269.6	244.9	229.7	17.1	23.5	59.4	35.5	Beans.....	15
.....	+79.6%	+18.8%	+30.4%	+31.8%	+10.6	+43.0	+10.4			
.....	-38.8%	-23.9%	-26.0%	-26.0%	-18.6	-31.9	-14.6			
42.5	70.7	110.2	240.0	223.4	19.0	31.7	49.3	....	Beans.....	16
70.0	75.6	257.4	215.3	201.5	17.4	18.7	63.9	34.8	Beans.....	17
89.9	225.0	359.5	236.6	224.8	13.3	33.4	53.3	35.1	Meats.....	18
123.7	354.9	252.2	194.8	182.7	16.9	48.6	34.5	36.4	Eggs or meats....	19
99.2	182.0	116.0	145.4	132.4	25.0	45.8	29.2	45.8	Meats.....	20
97.2	149.3	253.7	179.5	166.7	19.4	29.9	50.7	48.6	Beans or meats....	21
102.4	144.3	290.7	192.5	179.1	19.1	26.8	54.1	....	Beans or meats....	22
113.0	312.6	210.1	170.0	158.9	17.8	49.1	33.1	35.5	Meats.....	23
70.0	207.6	233.2	179.4	170.3	13.7	40.6	45.7	46.1	Meats.....	24
113.9	377.5	259.3	159.1	150.1	15.2	50.3	34.5	37.7	Meats.....	25
65.7	185.2	257.1	177.9	169.3	12.9	36.5	50.6	55.8	Meats.....	26

TABLE 7.—ANALYSES OF 242

No.	Name of Food	Constituents		Cost, Dollars	Calories in Sample	
		Food	Gm.		Total Bomb	Protein Bomb
27	Beef, corned, hash (steamed) with poached egg	Hash and egg.....	148.5	\$0.20	575.1	141.6
28	Beef, corned, with potato salad.....	Bread and butter..	69.3	.15	456.3	95.5
		Beef .....	29.9			
29	Beef, creamed chipped.....	Potato salad .....	114.6	.15	536.3	160.1
		Bread and butter..	66.5			
30	Beef, creamed chipped, on toast.....	Beef, etc. ....	210.2	.15	795.6	170.3
		Bread and butter..	73.7			
31	Beef, roast, cold.....	Beef .....	89.4	.15	464.2	155.7
		Sauce .....	94.3			
32	Beef, roast, croquettes with macaroni	Toast .....	32.9	.15	657.5	115.3
		Rolls .....	75.8			
33	Beef, roast, croquettes with spaghetti	Butter .....	12.8	.15	579.1	106.9
		Roast beef .....	79.2			
34	Beef, roast, cutlet, mashed potatoes..	Bread and butter..	77.8	.15	653.7	129.9
		Croquettes .....	85.2			
35	Beef, roast, cutlet with tomato sauce	Macaroni .....	93.1	.15	787.2	168.8
		Mashed potatoes ..	123.5			
36	Beef, roast, hash, browned.....	Bread and butter..	62.7	.15	701.4	124.3
		Croquettes .....	113.7			
37	Beef, roast, with potato salad.....	Spaghetti .....	102.6	.25	577.5	143.2
		Potatoes .....	126.4			
38	Beef, roast sirloin of, and mashed potatoes	Beef cutlet .....	112.4	.20	539.6	141.8
		Potatoes and gravy	122.6			
39	Blackberries and cream.....	Bread and butter..	69.1	.10	225.2	15.6
		Outlet .....	121.8			
40	Bread, hot corn.....	French fried potatoes and tomato sauce	85.4	.15	701.4	124.3
		Bread and butter..	83.0			
41	Bulgazoon .....	Hash .....	196.8	.15	701.4	124.3
42	Buns, bath .....	Bread and butter..	71.9			
43	Cakes, buckwheat, with country sausage	Beef .....	70.3	.25	577.5	143.2
		Potato salad .....	151.2			
44	Cakes, buckwheat, with maple cane syrup	Bread and butter..	68.8	.20	539.6	141.8
		Beef .....	72.6			
45	Cakes, butter (average 2 orders).....	Potatoes and gravy	164.5	.10	225.2	15.6
		Bread and butter..	65.4			
46	Cakes, chocolate, spiced.....	Blackberries (sugared) .....	108.5	.10	474.1	60.5
		Cream .....	60.0			
47	Cake, coconut .....	Total sample .....	153.2	.10	474.1	60.5
48	Cake, Coffee .....	Total sample .....	201.3			
49	Cakes, cornmeal, with maple cane syrup	Total sample .....	96.5	.05	370.0	44.5
		Cakes .....	135.3			
50	Cake, banana layer.....	Sausage .....	70.6	.20	655.4	129.5
		Butter .....	16.0			
51	Cake, chocolate layer.....	Cakes .....	145.1	.10	430.6	50.1
		Syrup .....	43.8			
52	Cake, walnut layer, with marshmallow icing	Total sample (av.)	96.2	.05	291.0	46.1
		Per cent. variation from average ..	+5.5%			
53	Cake, old fashioned molasses.....	Total sample .....	95.2	.05	330.5	23.1
		Total sample .....	53.7			
54	Cake, pound .....	Total sample .....	82.4	.05	209.7	18.2
		Total sample .....	82.4			
55	Cakes, rice, with maple cane syrup...	Cakes .....	174.4	.10	565.5	53.7
		Syrup .....	37.4			
56	Cakes, wheat, with maple cane syrup (average 6 orders)	Total sample .....	83.4	.05	260.0	23.5
		Total sample .....	65.6			
57	Cantaloup .....	Total sample .....	84.1	.05	332.3	32.4
		Total sample .....	82.7			
		Total sample .....	87.0	.15	393.0	35.9
		Total sample .....	270.3			
		Total sample (av.)	188.2	.10	476.2	49.9
		Per cent. variation from average ..	+15.6%			
		Edible portion .....	127.0	.15	37.4	4.1



READY-TO-SERVE FOODS (Continued)

Calories in Sample			Calories for 5 Cents		Distribution of Heat			Nutritional Calories from Bread and Butter	Classification	No.
Protein Nutritional	Fat	Carbohydrate	Total Bomb	Total Nutritional	Protein	Fat	Carbohydrate			
					%	%	%	%		
101.7	219.0	214.5	143.8	133.8	19.0	40.9	40.1	44.3	Meats.....	27
68.6	137.0	223.8	152.1	143.1	16.0	31.9	52.1	53.1	Meats.....	28
115.0	148.0	228.2	178.8	163.7	23.4	30.1	46.5	51.7	Meats.....	29
122.3	324.4	300.9	265.2	249.2	16.4	43.4	40.2	....	Meats.....	30
111.8	154.2	154.3	154.7	140.1	26.6	36.7	36.7	63.4	Meats.....	31
82.8	211.9	330.3	219.2	208.3	13.3	33.9	52.8	34.3	Meats.....	32
76.8	188.8	233.4	193.0	183.0	14.0	34.3	51.7	....	Meats.....	33
93.2	265.6	258.2	217.9	205.7	15.1	43.0	41.9	38.8	Meats.....	34
121.2	318.1	300.3	262.4	246.5	16.4	43.0	40.6	38.4	Meats.....	35
89.2	301.0	276.1	233.8	222.1	13.4	45.2	41.4	36.9	Meats.....	36
102.8	178.7	255.6	115.5	107.4	19.1	33.3	47.6	43.9	Meats.....	37
101.8	141.4	256.4	134.9	124.9	20.3	28.3	51.4	44.8	Meats.....	38
11.2	96.7	112.9	112.6	110.4	5.0	51.2	43.8	....	Fruit.....	39
43.5	104.3	309.3	237.1	228.6	9.5	22.8	67.7	....	Miscellaneous.....	40
26.5	76.0	29.6	142.4	132.1	20.1	57.5	22.4	....	Miscellaneous.....	41
32.0	91.3	234.2	370.0	357.5	9.0	25.5	65.5	....	Miscellaneous.....	42
93.0	351.8	174.1	163.9	154.7	15.0	56.9	28.1	....	Miscellaneous.....	43
36.0	67.2	313.3	215.3	208.3	8.6	16.1	75.3	....	Miscellaneous.....	44
33.1	71.3	173.6	291.0	278.0	12.0	25.6	62.4	....	Miscellaneous.....	45
.....	+5.8%	+8.9%	+7.8%	+7.9%	+1.7	+1.6	+1.0	....		
.....	-5.8%	-8.9%	-7.8%	-7.9%	-1.7	-1.6	-1.0	....		
16.6	85.7	221.7	330.5	324.0	5.1	26.4	68.5	....	Pastry and dessert	46
13.1	79.6	111.9	209.7	204.6	6.4	38.9	54.7	....	Pastry and dessert	47
24.6	72.8	192.8	299.9	290.2	8.5	25.1	66.4	....	Pastry and dessert	48
38.5	143.6	368.2	282.8	275.2	7.0	26.1	66.9	....	Miscellaneous.....	49
16.9	76.0	160.5	260.0	253.4	6.6	30.0	63.4	....	Pastry and dessert	50
14.8	47.5	150.1	218.3	212.4	7.0	22.3	70.7	....	Pastry and dessert	51
23.3	99.5	200.4	332.3	323.2	7.2	30.8	62.0	....	Pastry and dessert	52
17.7	62.2	202.0	288.8	281.9	6.3	22.1	71.6	....	Pastry and dessert	53
25.8	146.5	210.6	196.5	191.5	6.7	38.3	55.0	....	Pastry and dessert	54
47.0	146.7	363.1	191.8	185.6	8.4	26.3	65.3	....	Miscellaneous.....	55
35.8	108.5	317.8	238.1	231.1	7.7	23.3	69.0	....	Miscellaneous.....	56
.....	+13.3%	+15.7%	+14.2%	+14.0%	+10.4	+21.8	+9.0	....		
.....	-30.0%	-8.8%	-13.2%	-12.9%	-9.1	-23.6	-6.9	....		
2.9	.....	33.3	12.5	12.1	8.0	.....	92.0	....	Fruit.....	57



TABLE 7.—ANALYSES OF 242

No.	Name of Food	Constituents		Cost, Dol- lars	Calories in Sample	
		Food	Gm.		Total Bomb	Pro- tein Bomb
58	Champagne .....	Total sample .....	375.5*	\$2.00	344.9	From alcohol
59	Charlotte Russe .....	Total sample .....	43.5	.05	161.3	17.2
60	Chicken, creamed, on toast.....	Chicken and toast.....	160.7	.20	400.2	102.3
		Bread and butter..	40.6			
61	Chicken croquette and French fried potatoes .....	Croquette .....	87.4	.15	499.7	77.5
		Potatoes .....	96.1			
62	Chicken cutlet with mashed potatoes	Cutlet .....	86.5	.15	602.2	101.0
		Potatoes .....	105.5			
		Bread and butter..	96.4			
63	Chicken giblets on toast.....	Giblets and toast..	177.2	.20	673.5	217.8
		Potatoes .....	124.2			
		Bread and butter..	74.3			
64	Chicken hash .....	Hash .....	124.3	.15	468.1	97.1
		Bread and butter..	59.6			
65	Chicken wings on toast.....	Total edible chicken	388.6	.20	753.4	285.6
		Toast and potatoes,				
		Bread and butter	75.0			
66	Clam chowder .....	Chowder .....	413.2	.20	429.5	96.1
		Crackers .....	46.0			
67	Cocoa .....	Total sample .....	257.3	.05	256.7	32.9
68	Codfish, creamed, on toast (average 2 orders)	Codfish (average)..	152.8	.15	567.8	155.6
		Per cent. variation from average ....	+4.1%	.....	+8.6%	+4.9%
		Toast (average)...	44.1		-8.6%	-4.9%
		Per cent. variation from average ....	+6.1%	.....		
		Bread and butter (average) .....	70.8			
		Per cent. variation from average ....	+14.4%	.....		
69	Coffee, cup of, containing cream and sugar .....	Total sample .....	327.8	.05	202.9	27.5
70	Corn, stewed .....	Total sample .....	70.1	.05	54.5	7.0
71	Corn flakes and milk.....	Corn flakes .....	19.3	.10	237.5	54.7
		Milk .....	233.5			
72	Cornstarch, chocolate, with cream....	Total sample .....	160.5	.05	239.3	27.4
73	Cornstarch, chocolate, with whipped cream .....	Total sample .....	160.9	.05	164.1	16.2
		Cream lost .....				
74	Cornstarch, strawberry, with whipped cream .....	Total sample .....	119.7	.05	102.5	1.3
75	Cornstarch, vanilla, with cream.....	Total sample .....	172.2	.05	213.9	26.1
76	Crab, deviled (average 2 orders)....	Crab (edible) (av.)	81.4	.20	386.6	84.9
		Per cent. variation from average ....	+11.8%	.....	+9.3%	+7.8%
		Bread and butter (average) .....	67.8		-9.3%	-7.8%
		Per cent. variation from average ....	+0.6%	.....		
		Water cress (av)...	15.4			
		Per cent. variation from average ....	+26.5%	.....		
77	Crackers, graham (average 3 orders)	Total sample (av.)	51.5	.05	230.1	21.4
		Per cent. variation from average ....	+2.5%	.....	+2.4%	+1.4%
		Crackers .....	72.6	.05	326.6	33.5
		Crackers .....	70.8	.10	483.6	80.2
		Milk .....	226.9			
80	Crackers, soda, and milk.....	Crackers .....	52.5	.10	397.4	71.6
		Milk .....	233.7			
81	Cream .....	Total sample .....	239.0	.15	515.9	35.5
82	Cream roll .....	Total sample .....	47.4	.05	230.4	18.8
83	Cream of wheat.....	Total sample .....	205.9	.10	135.2	32.9
84	Crullers .....	Total sample .....	110.7	.05	457.0	46.0
85	Custard, baked apple, with whipped cream .....	Total sample .....	193.9	.10	269.3	22.7
86	Custard, cup .....	Total sample .....	189.7	.10	234.1	53.4
87	Eclair, chocolate .....	Total sample .....	74.9	.05	193.4	19.2

\* Cubic centimeters.

READY-TO-SERVE FOODS (Continued)

Calories in Sample			Calories for 5 Cents		Distribution of Heat			Nutritional Calories from Bread and Butter	Classification	No.
Protein Nutritional	Fat	Carbohydrate	Total Bomb	Total Nutritional	Protein	Fat	Carbohydrate			
					%	%	%	%		
267.8	.....	77.1	.....	8.6	.....	.....	22.7	....	.....	58
12.4	71.5	72.6	161.3	156.5	7.9	45.7	46.4	....	Pastry and dessert Meats.....	59
73.5	88.5	209.4	100.1	92.9	19.8	23.8	56.4	37.5		60
55.7	200.9	221.8	166.6	159.3	11.7	42.1	46.2	....	Meats.....	61
72.5	163.7	337.5	200.7	191.2	12.6	28.5	58.9	57.6	Meats.....	62
156.4	158.6	297.1	168.4	153.0	25.6	25.9	48.5	41.5	Meats.....	63
69.8	183.4	187.6	156.0	146.9	15.8	41.6	42.6	46.3	Meats.....	64
205.0	184.1	283.7	188.4	168.2	30.5	27.4	42.1	38.2	Meats.....	65
69.0	41.2	292.2	107.4	100.6	17.1	10.2	72.7	....	Soups.....	66
23.7	67.5	156.8	256.7	247.5	9.6	27.3	68.1	....	Miscellaneous..... Meats.....	67
111.8	157.0	255.2	189.3	174.7	21.4	29.7	48.9	46.3		68
.....	+20.5%	+3.9%	+8.6%	+9.1%	+4.2	+11.5	+5.2			
.....	-20.5%	-3.9%	-8.6%	-9.1%	-4.2	-11.5	-5.2			
19.8	23.2	152.2	202.9	195.2	10.1	11.9	78.0	....	Miscellaneous.....	69
5.0	3.8	43.7	54.5	52.5	9.5	7.2	83.3	....	Miscellaneous.....	70
39.3	83.2	99.6	118.3	111.1	17.7	37.5	44.8	....	Dairy dish.....	71
19.7	117.2	94.7	239.3	231.6	8.5	50.6	40.9	....	Pastry and dessert Pastry and dessert	72
11.7	9.5	138.4	164.1	159.6	7.3	6.0	86.7	....		73
1.0	5.1	96.1	102.5	102.2	1.0	5.0	94.0	....	Pastry and dessert	74
18.7	26.8	161.0	213.9	206.5	9.0	13.0	78.0	....	Pastry and dessert Meats.....	75
61.0	106.2	195.5	96.8	90.7	16.9	29.3	53.8	64.1		76
.....	+9.5%	+10.0%	+9.3%	+9.3%	+1.1	+0.0	+0.5			
.....	-9.5%	-10.0%	-9.3%	-9.3%	-1.1	-0.0	-0.5			
15.4	49.2	159.6	230.1	223.3	6.8	22.0	71.2	....	Dairy dish.....	77
.....	+1.6%	+3.0%	+2.4%	+2.3%	+6.0	+1.5	+0.6			
.....	-3.2%	-6.0%	-4.6%	-4.6%	-3.0	-0.8	-1.2			
24.0	80.3	212.8	326.6	317.1	7.6	25.3	67.1	....	Dairy dish.....	78
57.6	157.1	246.3	241.8	230.5	12.5	34.1	53.4	....	Dairy dish.....	79
51.4	131.9	193.9	198.7	188.6	13.6	35.0	51.4	....	Dairy dish.....	80
25.5	450.3	30.1	172.0	168.7	5.0	89.1	5.9	....	Miscellaneous.....	81
13.5	116.4	95.2	230.4	225.1	6.0	51.7	42.3	....	Pastry and dessert	82
23.6	0.6	101.7	67.6	63.0	18.7	0.5	80.8	....	Dairy dish.....	83
33.0	168.2	242.8	457.0	444.0	7.4	37.9	54.7	....	Pastry and dessert	84
16.3	38.3	208.3	134.7	131.5	6.2	14.6	79.2	....	Pastry and dessert	85
38.3	50.4	130.3	117.1	109.5	17.5	23.0	59.5	....	Pastry and dessert	86
13.8	48.3	125.9	193.4	183.0	7.3	25.7	67.0	....	Pastry and dessert	87

TABLE 7.—ANALYSES OF 242

No.	Name of Food	Constituents		Cost, Dollars	Calories in Sample	
		Food	Gm.		Total Bomb	Protein Bomb
88	Eggs, boiled (2).....	Eggs (edible) .....	91.6	\$0.15	391.0	92.8
89	Eggs, creamed on toast.....	Toast and butter..	42.0	.20	663.9	146.6
		Creamed eggs .....	193.6			
90	Eggs, fried (2) (average 2 orders)....	Toast .....	48.4	.15	527.8	105.8
		Bread and butter..	68.3			
		Eggs (average) ....	84.7			
		Per cent. variation from average ....	+9.9%			
		Bread and butter (average) .....	-9.9%			
		Per cent. variation from average ....	+14.4%			
91	Egg plant fried in butter.....	Total sample .....	154.0	.15	637.6	46.8
92	Eggs, poached on toast (2).....	Eggs .....	83.1	.20	286.2	84.5
		Toast .....	43.3			
93	Eggs, scrambled (2).....	Eggs .....	64.6	.15	461.1	78.7
		Bread and butter..	67.6			
94	Fish cakes with macaroni.....	Cakes .....	143.7	.20	537.8	107.1
		Macaroni .....	91.4			
		Bread and butter..	58.1			
95	Fish cakes with poached egg.....	Fish cakes .....	118.1	.20	603.8	129.5
		Poached egg .....	44.3			
96	Fish cakes with spaghetti.....	Bread and butter..	83.1	.20	512.9	108.4
		Fish cakes .....	122.3			
		Spaghetti .....	141.2			
97	Fish cakes with tomato sauce.....	Bread and butter..	76.1	.15	506.5	81.0
		Fish cakes .....	153.6			
98	Frankfurters and potato salad.....	Bread and butter..	76.9	.15	619.8	114.0
		Frankfurters .....	65.4			
		Potato salad .....	158.6			
99	Grape fruit .....	Bread and butter..	72.9	.15	79.0	6.3
100	Ham, broiled .....	Edible portion .....	189.3	.20	936.7	158.0
		Ham .....	90.2			
101	Ham, cold .....	Bread .....	67.7	.15	574.8	86.6
		Potatoes .....	106.6			
		Ham .....	65.6			
102	Ham croquettes .....	Bread and butter..	63.7	.10	556.8	108.8
		Croquettes .....	82.1			
		Mashed potatoes and gravy .....	166.3			
103	Ham, fried .....	Bread and butter..	50.2	.25	468.2	120.6
		Ham .....	63.6			
104	Ham and beans (Boston).....	Bread and butter..	62.7	.15	638.5	122.4
		Ham .....	42.6			
		Beans .....	107.6			
105	Ham and beans (New York).....	Bread and butter..	73.8	.15	662.0	149.6
		Ham .....	35.9			
		Beans .....	176.9			
106	Ham and eggs (average 9 orders)....	Bread and butter..	72.3	.25	842.6	181.9
		Ham (average) ....	53.7			
		Per cent. variation from average ....	+40.0%			
		Eggs (average) ....	-26.3%			
		Per cent. variation from average ....	+20.5%			
		Potatoes (average) .....	-21.8%			
107	Ham, minced, and scrambled eggs....	Per cent. variation from average ....	+58.3%	.20	763.4	126.5
		Potatoes (average) .....	-33.6%			
		Bread and butter (average) .....	68.9			
		Per cent. variation from average ....	+27.4%			
		Ham and eggs.....	-21.6%			
		French fried potatoes .....	72.4			
Bread and butter..	75.4					

READY-TO-SERVE FOODS (Continued)

Calories in Sample			Calories for 5 Cents		Distribution of Heat			Nutritional Calories from Bread and Butter	Classification	No.
Protein Nutritional	Fat	Carbohydrate	Total Bomb	Total Nutritional	Protein	Fat	Carbohydrate			
					%	%	%	%		
66.6	189.7	108.5	130.3	121.6	18.3	52.0	29.7	....	Eggs.....	88
105.2	258.9	258.4	166.0	155.6	16.9	41.6	41.5	37.6	Eggs.....	89
76.0	229.9	192.2	176.0	166.0	15.3	46.3	38.4	58.1	Eggs.....	90
.....	+5.5%	+16.2%	+4.0%	+4.0%	+1.3	+9.8	+12.1			
.....	-5.5%	-16.2%	-4.0%	-4.0%	-1.3	-9.8	-12.1			
35.2	396.5	194.3	212.5	208.7	5.6	63.4	31.0	....	Miscellaneous.....	91
60.7	83.3	118.4	71.6	65.6	23.2	31.7	45.1	....	Eggs.....	92
56.5	230.1	152.3	153.7	146.3	12.9	52.4	34.7	52.6	Eggs.....	93
76.9	136.7	294.0	134.5	126.9	15.1	26.9	58.0	....	Meats.....	94
93.0	190.3	284.0	151.0	141.8	16.4	33.5	50.1	53.2	Meats.....	95
77.9	100.8	303.7	123.2	120.6	16.1	20.9	63.0	54.0	Meats.....	96
58.2	154.0	271.5	168.8	161.2	12.0	31.9	56.1	54.4	Meats.....	97
81.9	244.3	261.5	206.6	195.9	13.9	41.6	44.5	42.5	Meats.....	98
4.6	.....	72.7	26.3	25.8	6.0	.....	94.0	....	Fruit.....	99
113.5	478.5	300.2	234.2	223.1	12.7	53.6	33.7	....	Meats.....	100
62.2	366.6	121.6	191.6	183.5	11.3	66.6	22.1	39.6	Meats.....	101
78.1	197.5	250.5	278.4	263.1	14.8	37.6	47.6	32.7	Meats.....	102
86.6	204.6	143.0	93.6	86.8	20.0	47.1	32.9	49.6	Meats.....	103
87.9	256.1	260.0	212.8	201.3	14.5	42.4	43.1	44.6	Beans or meats....	104
107.4	115.5	396.9	220.7	206.6	17.4	-18.6	64.0	40.2	Beans or meats....	105
130.6	411.9	243.7	168.5	153.3	16.6	52.2	31.2	29.8	Meats or eggs.....	106
.....	+11.2%	+41.5%	+15.0%	+15.8%	+18.2	+10.7	-22.8			
.....	-19.2%	-31.0%	-20.6%	-21.6%	-16.2	-9.5	-24.0			
90.8	402.1	234.8	190.9	181.9	12.5	55.2	32.3	35.5	Eggs.....	107



TABLE 7.—ANALYSES OF 242

No.	Name of Food	Constituents		Cost, Dol- lars	Calories in Sample	
		Food	Gm.		Total Bomb	Pro- tein Bomb
108	Ham and potato salad.....	Ham .....	67.7	\$0.20	665.3	116.5
		Potato salad .....	177.5			
		Bread and butter..	57.5			
109	Ice cream, strawberry.....	Total sample .....	105.3	.10	208.3	14.9
110	Ice cream, vanilla.....	Total sample .....	134.8	.10	233.7	21.9
111	Jelly, pineapple fruit, with whipped cream	Total sample .....	110.7	.05	113.5	13.4
112	Jelly, strawberry fruit, with whipped cream	Total sample .....	128.2	.05	155.8	3.2
113	Lamb chops (2).....	Chops (edible) .....	55.0	.30	852.9	146.5
		Potatoes .....	85.1			
		Toast and butter..	18.5			
		Bread and butter..	71.3			
114	Lamb chops breaded with mashed potatoes	Chops (edible) .....	42.6	.20	554.9	85.4
		Potatoes and gravy	111.1			
		Bread and butter..	75.4			
115	Lamb croquettes and mashed pota- toes	Croquette .....	134.9	.15	918.4	156.8
		Potatoes and sauce	189.0			
		Bread and butter..	75.4			
116	Lamb cutlet with mashed potatoes...	Outlet .....	99.5	.15	651.8	126.3
		Potatoes .....	120.6			
		Bread and butter..	66.5			
117	Lamb pie, baked, individual.....	Pie .....	213.5	.15	613.4	178.1
		Bread and butter..	76.7			
118	Liver and bacon.....	Liver .....	63.9	.25	797.2	177.5
		Bacon .....	16.3			
		Bread and butter..	79.4			
		Potatoes .....	85.4			
119	Liver and bacon with lyonnaise pota- toes	Liver .....	127.3	.25	814.5	210.9
		Bacon .....	20.6			
		Potatoes .....	155.9			
		Bread and butter..	65.6			
120	Liver and onions with French fried potatoes	Liver .....	51.8	.20	838.5	135.8
		Onions and gravy..	55.5			
		French fried pota- toes .....	57.8			
		Rolls and butter...	81.8			
121	Liver, fried, with mashed potatoes...	Liver and gravy...	90.5	.15	532.3	134.9
		Potatoes .....	129.8			
		Bread and butter..	74.7			
122	Macaroni, side order.....	Total sample .....	119.8	.05	133.3	26.7
123	Macaroni, baked, and cheese.....	Macaroni and cheese	212.1	.10	382.8	69.5
		Bread and butter..	42.9			
124	Mackerel, broiled salt, with mashed potatoes	Mackerel (edible) ..	100.8	.20	830.1	218.0
		Potatoes .....	112.1			
		Bread and butter..	98.9			
125	Maple flakes with milk.....	Maple flakes .....	31.3	.10	283.4	64.0
		Milk .....	234.6			
126	Meat cakes, German, with French fried potatoes	Meat cakes .....	123.5	.15	890.2	130.6
		Potatoes .....	112.8			
		Bread and butter..	67.8			
127	Meat cakes, German, with Lyonnaise potatoes	Meat cakes .....	156.3	.15	788.6	175.2
		Potatoes .....	103.2			
		Bread .....	54.7			
128	Milk .....	Total sample .....	453.6	.10	312.8	79.0
129	Muffins, corn .....	Total sample .....	101.3	.05	352.3	35.9
130	Muffins, hot corn .....	Total sample .....	103.5	.05	341.5	47.6
131	Napoleon .....	Total sample .....	113.1	.05	461.7	28.8
132	Oatmeal, fresh cooked, with cream...	Oatmeal .....	195.9	.15	396.3	47.1
		Cream .....	95.8			
133	Omelet, chicken .....	Omelet .....	132.4	.25	494.0	141.5
		Bread and butter..	42.5			
134	Omelet, ham .....	Omelet .....	116.7	.20	703.7	146.6
		Potatoes .....	68.4			
		Bread and butter..	68.6			
135	Omelet, macaroni, with tomato sauce	Omelet .....	249.6	.25	636.7	145.7
		Bread and butter..	66.9			



## READY-TO-SERVE FOODS (Continued)

Calories in Sample			Calories for 5 Cents		Distribution of Heat			Nutritional Calories from Bread and Butter	Classification	No.
Protein Nutritional	Fat	Carbohydrate	Total Bomb	Total Nutritional	Protein	Fat	Carbohydrate			
					%	%	%	%		
83.7	317.0	231.8	166.3	153.1	13.3	50.1	36.6	31.1	Meats.....	108
10.7	106.7	86.7	104.2	102.1	5.2	52.3	42.5	....	Pastry and dessert	109
15.7	118.3	93.5	116.9	113.8	6.9	52.0	41.1	....	Pastry and dessert	110
9.7	40.3	59.8	113.5	109.8	8.8	36.7	54.5	....	Pastry and dessert	111
2.3	34.2	118.4	155.8	154.9	1.5	22.1	76.4	....	Pastry and dessert	112
105.2	365.8	340.6	142.2	135.3	13.0	45.0	42.0	....	Meats.....	113
61.3	249.6	219.9	138.7	132.7	11.6	47.0	41.4	48.6	Meats.....	114
112.6	426.0	335.6	306.1	291.4	12.9	48.7	38.4	29.5	Meats.....	115
90.7	252.8	272.7	217.3	205.4	14.7	41.0	44.3	36.9	Meats.....	116
127.9	204.6	230.7	204.5	187.7	22.7	36.3	41.0	46.6	Meats.....	117
127.5	334.6	285.1	159.4	149.4	17.0	44.8	38.2	36.4	Meats.....	118
151.4	299.7	303.9	162.9	151.0	20.1	39.7	40.2	29.7	Meats.....	119
97.5	398.6	304.1	209.6	200.1	12.2	49.8	38.0	....	Meats.....	120
96.9	151.1	246.3	177.4	164.8	19.6	30.6	49.8	51.7	Meats.....	121
19.2	14.4	92.2	133.3	125.8	15.3	11.4	73.3	....	Miscellaneous.....	122
49.9	46.9	266.4	191.4	181.6	13.7	12.9	73.4	40.5	Miscellaneous.....	123
156.6	339.4	272.7	207.5	192.2	20.4	44.1	35.5	44.1	Meats.....	124
45.9	84.5	134.9	141.7	132.6	17.3	31.8	50.7	....	Dairy dish.....	125
93.8	398.0	361.6	296.7	284.5	11.0	46.6	42.4	27.2	Meats.....	126
125.8	344.5	268.9	262.9	246.4	17.0	46.6	36.4	....	Meats.....	127
56.7	156.9	76.9	156.4	145.3	19.5	54.0	26.5	....	Miscellaneous.....	128
25.8	81.2	235.2	352.3	342.2	7.5	23.7	68.8	....	Miscellaneous.....	129
34.2	96.4	197.5	341.5	323.1	10.4	29.4	60.2	....	Miscellaneous.....	130
20.7	204.4	228.5	461.7	453.6	4.5	45.1	50.4	....	Pastry and dessert	131
33.8	212.7	136.5	132.1	127.7	8.8	55.6	35.6	....	Dairy dish.....	132
101.6	240.8	111.7	98.8	90.8	22.4	53.0	24.6	32.1	Eggs.....	133
105.3	263.9	293.2	175.9	165.6	15.9	39.9	44.2	35.5	Eggs.....	134
104.6	244.8	246.2	127.3	119.1	17.6	41.1	41.3	38.5	Eggs.....	135

TABLE 7.—ANALYSES OF 242

No.	Name of Food	Constituents		Cost, Dollars	Calories in Sample	
		Food	Gm.		Total Bomb	Protein Bomb
136	Omelet, Onion .....	Omelet .....	197.6	\$0.20	552.7	128.3
		Bread and butter...	40.8			
137	Omelet, parsley .....	Omelet .....	103.0	.20	489.2	100.5
		Bread and butter...	71.5			
138	Omelet, plain (average 8 orders).....	Omelet (average) ..	109.9	.15	529.5	117.2
		Per cent. variation	+5.8%	.....	+28.1%	+17.4%
		from average ....	-8.0%	.....	-14.7%	-15.1%
		Bread and butter				
		(average) .....	68.5			
		Per cent. variation	+52.1%			
		from average ....	-46.6%			
139	Omelet, Spanish, with French fried potatoes	Omelet .....	182.7	.25	697.7	134.8
		Potatoes .....	59.0			
		Bread and butter...	76.9			
140	Omelet, tomato .....	Omelet .....	178.9	.20	738.5	145.6
		Rolls and butter...	112.6			
141	Omelet, tomato, with potatoes.....	Omelet .....	170.5	.25	633.2	83.3
		Potatoes .....	78.5			
		Bread and butter...	76.5			
142	Oyster fry, large (average 2 orders)..	Oysters (average)...	191.8	.25	844.3	125.4
		Per cent. variation	+5.2%	.....	+1.0%	+3.8%
		from average ....	-5.2%	.....	-1.0%	-3.8%
		Bread and butter				
		(average) .....	82.9			
		Per cent. variation	+10.4%			
		from average ....	-10.4%			
143	Oyster fry, plain, with bacon.....	Oyster fry .....	196.1	.30	1,076.2	162.2
		Bacon .....	17.3			
		Bread and butter...	96.3			
144	Oyster fry, small.....	Oyster fry .....	167.9	.20	729.7	117.6
		Bread and butter...	74.4			
145	Oyster pie .....	Total sample .....	298.2	.15	690.4	103.7
146	Oysters, raw .....	Total sample .....	98.6	.15	64.9	32.0
147	Pie, apple .....	Total sample .....	137.5	.05	343.1	20.9
148	Pie, blackberry .....	Total sample .....	145.2	.10	361.7	20.8
149	Pie, cherry (average 2 orders).....	Total sample (av.)..	170.3	.10	339.5	23.3
		Per cent. variation	+12.6%	.....	+8.0%	+27.4%
		from average ....	-12.6%	.....	-8.0%	-27.4%
150	Pie, cocoanut .....	Total sample .....	174.3	.05	389.7	59.7
151	Pie, huckleberry .....	Total sample .....	159.6	.10	363.9	15.9
152	Pie, lemon .....	Total sample .....	146.1	.05	284.8	18.2
153	Pie, mince .....	Total sample .....	177.4	.10	401.1	45.9
154	Pie, peach .....	Total sample .....	169.6	.10	368.4	16.5
155	Pie, pineapple .....	Total sample .....	161.5	.05	353.0	20.0
156	Pie, pumpkin .....	Total sample .....	170.9	.05	307.6	40.7
157	Pie, rhubarb .....	Total sample .....	116.2	.05	291.3	15.9
158	Pie, strawberry .....	Total sample .....	149.5	.10	382.7	23.5
159	Pineapple, sliced (average 2 orders)...	Pineapple (average)	124.2	.05	36.5	4.1
		Per cent. variation	+0.02%			
		from average ....	-0.02%			
160	Pork and beans, Boston.....	Pork .....	62.2	.15	868.0	135.1
		Beans .....	166.1			
		Bread and butter...	65.7			
161	Pork and beans, New York (average 2 orders)	Pork (average) .....	23.6	.15	631.1	124.9
		Per cent. variation	+3.8%	.....	+6.6%	+9.0%
		from average ....	-3.8%	.....	-6.6%	-9.0%
		Beans (average) ...	161.2			
		Per cent. variation	+3.4%			
		from average ....	-3.4%			
		Bread and butter				
		(average) .....	67.1			
		Per cent. variation	+2.9%			
		from average ....	-2.9%			
162	Potatoes, French fried, extra order..	Total sample .....	131.7	.10	329.8	31.8
163	Pudding, bread, with vanilla sauce...	Total sample .....	201.8	.05	311.9	47.7
164	Pudding, bread, custard.....	Total sample .....	203.9	.05	371.4	56.8

READY-TO-SERVE FOODS (Continued)

Calories in Sample			Calories for 5 Cents		Distribution of Heat			Nutritional Calories from Bread and Butter	Classification	No.
Protein Nutritional	Fat	Carbo-hydrate	Total Bomb	Total Nutritional	Protein	Fat	Carbo-hydrate			
					%	%	%	%		
92.1	291.7	132.7	138.2	129.1	17.8	56.5	25.7	27.0	Eggs.....	136
72.2	214.1	174.6	122.3	115.2	15.6	46.5	57.9	53.1	Eggs.....	137
84.2	254.4	157.9	176.5	165.5	17.0	51.5	31.5	47.2	Eggs.....	138
.....	+25.7%	+40.3%	+28.1%	+29.0%	+10.0	+14.6	+19.6			
.....	-17.6%	-35.4%	-14.7%	-14.8%	-9.4	-10.7	-23.5			
96.8	304.3	258.6	139.5	132.1	14.7	46.1	39.2	39.8	Eggs.....	139
104.5	313.5	279.4	184.6	174.4	15.0	45.0	40.0	55.3	Eggs.....	140
59.8	205.2	344.7	126.6	121.9	9.8	33.7	56.7	42.9	Eggs.....	141
90.0	364.8	354.2	168.9	161.8	11.1	45.1	43.8	35.1	Oysters.....	142
.....	+0.3%	+3.5%	+1.0%	+1.2%	+5.5	+0.8	+2.3			
.....	-0.3%	-3.5%	-1.0%	-1.2%	-5.5	-0.8	-2.3			
116.5	469.4	444.6	179.4	171.8	11.3	45.6	43.1	32.0	Oysters.....	143
84.5	218.6	393.5	182.4	174.2	12.1	31.4	56.5	36.6	Oysters.....	144
74.4	265.1	321.6	230.1	220.4	11.3	40.1	48.6	....	Oysters.....	145
23.0	11.9	21.0	21.6	18.6	41.1	21.3	37.6	....	Oysters.....	146
15.0	101.2	221.0	343.1	337.2	4.5	30.0	65.5	....	Pastry and dessert	147
14.9	94.9	246.0	180.9	177.9	4.2	26.6	69.2	....	Pastry and dessert	148
16.7	91.5	274.8	194.8	191.5	4.3	23.3	72.4	....	Pastry and dessert	149
.....	+36.7%	+3.2%	+8.0%	+7.7%	+5.8	+29.7	+10.8			
.....	-36.7%	-3.2%	-8.0%	-7.7%	-5.8	-29.7	-10.8			
42.9	183.7	146.3	389.7	372.9	11.5	49.3	39.2	....	Pastry and dessert	150
11.4	81.9	266.1	182.0	179.7	3.2	22.8	74.0	....	Pastry and dessert	151
13.1	96.3	170.3	284.8	279.7	4.7	34.4	60.9	....	Pastry and dessert	152
32.9	97.2	258.0	200.6	194.1	8.5	25.1	66.4	....	Pastry and dessert	153
11.8	93.9	258.0	184.2	181.8	3.2	25.8	71.0	....	Pastry and dessert	154
14.4	113.7	219.3	353.0	347.4	4.1	32.7	63.2	....	Pastry and dessert	155
29.2	79.1	187.8	307.6	296.1	9.9	26.7	63.4	....	Pastry and dessert	156
11.4	75.8	199.6	291.3	286.8	4.0	26.4	69.6	....	Pastry and dessert	157
16.8	86.0	273.2	191.4	188.0	4.4	22.9	72.7	....	Pastry and dessert	158
2.9	.....	32.4	36.5	35.3	8.2	.....	91.8	....	Fruit.....	159
97.0	445.4	287.5	289.3	276.6	11.7	53.7	34.6	27.1	Beans or meats....	160
89.7	178.0	328.2	210.4	198.7	15.1	30.2	54.7	38.5	Beans or meats....	161
.....	+14.3%	+17.2%	+6.6%	+6.5%	+2.3	+20.7	+10.8			
.....	-14.3%	-17.2%	-6.6%	-6.5%	-2.3	-20.7	-10.8			
22.8	96.3	201.7	164.9	160.4	7.1	30.0	62.9	....	Miscellaneous.....	162
34.2	37.4	226.8	311.9	298.4	11.5	12.5	76.0	....	Pastry and dessert	163
40.8	48.9	265.7	371.4	355.4	11.5	13.7	74.8	....	Pastry and dessert	164

TABLE 7.—ANALYSES OF 242

No.	Name of Food	Constituents		Cost, Dollars	Calories in Sample	
		Food	Gm.		Total Bomb	Protein Bomb
165	Pudding, cabinet, with vanilla sauce (average 2 orders)	Total sample (av.)	217.8	\$0.05	416.8	61.6
		Per cent. variation from average	+11.0%	.....	+22.5%	+19.6%
			-11.0%	.....	-22.5%	-19.6%
166	Pudding, Indian, with maple sauce....	Total sample	167.9	.05	237.0	34.7
167	Pudding, New England, with vanilla sauce	Total sample	244.5	.05	342.3	41.0
168	Pudding, rice, cold.....	Total sample	227.7	.05	275.4	43.6
169	Pudding, tapioca apple.....	Total sample	224.5	.05	225.5	29.4
170	Pudding, tapioca creamed.....	Total sample	64.8	.05	197.9	29.3
171	Rhubarb, stewed	Total sample	118.3	.05	95.0	4.0
172	Rice, boiled, side order.....	Total sample	161.6	.05	135.6	17.0
173	Rice croquette with bacon (average 2 orders)	Rice croquette (av.)	97.2	.15	611.0	79.3
		Per cent. variation from average	+17.5%	.....	+12.7%	+6.0%
			-17.5%	.....	-12.7%	-6.0%
		Bacon (average)	4.9			
		Per cent. variation from average	+3.1%			
			-3.1%			
		Potatoes and sauce (average)	132.4			
		Per cent. variation from average	+13.5%			
			-13.5%			
		Bread and butter (average)	74.7			
		Per cent. variation from average	+1.2%			
			-1.2%			
174	Rice, hot, with butter.....	Total sample	188.3	.10	313.0	27.5
175	Rice, hot, with cream.....	Rice, sugar, cream.	338.4	.15	533.8	48.5
176	Rice, hot, with milk.....	Total sample	298.7	.10	294.2	53.4
177	Rice, hot, with poached egg.....	Rice	153.1	.15	452.5	80.4
		Poached egg	48.1			
		Bread and butter...	62.5			
178	Roast, Vienna, with French fried potatoes	Roast	181.4	.15	886.4	133.5
		Potatoes	71.4			
		Bread and butter...	72.6			
179	Roast, Vienna, with spaghetti and potatoes	Vienna roast	103.9	.15	749.4	143.7
		Spaghetti	69.4			
		Mashed potatoes	98.8			
		Buttered bread	70.5			
		Butter	10.7			
180	Roast, Vienna, with stewed tomatoes	Roast and tomatoes	136.1	.15	553.2	103.4
		Bread and butter...	47.8			
181	Salad, crab meat.....	Crab meat	114.0	.20	437.7	140.9
		Lettuce	34.5			
		Boiled egg	13.7			
		Bread and butter...	79.1			
182	Salad, egg	Eggs	117.6	.20	497.8	119.8
		Lettuce	31.7			
		Bread and butter...	74.5			
183	Salad, potato	Potatoes, etc.	227.6	.10	448.3	50.9
		Lettuce	18.3			
		Bread and butter...	48.7			
184	Salad, tuna fish.....	Salad	166.0	.25	591.3	131.0
		Bread and butter...	69.8			
185	Sandwich, American cheese.....	Total sample	63.7	.05	244.2	49.7
186	Sandwich, chicken, sliced.....	Total sample	50.0	.10	167.0	38.6
187	Sandwich, Chicken salad.....	Total sample	92.0	.10	282.9	48.2
188	Sandwich, club	Toast	73.3	.25	438.6	111.3
		Lettuce	10.8			
		Chicken and bacon	42.4			
189	Sandwich, corned beef (average 18 orders)	Corned beef (av.)	17.5	.05	201.4	54.6
		Per cent. variation from average	+44.5%	.....	+26.0%	+39.1%
			-50.9%	.....	-24.9%	-37.7%
		Bread and butter (average)	43.0			
		Per cent. variation from average	+17.4%			
			-26.1%			



READY-TO-SERVE FOODS (Continued)

Calories in Sample			Calories for 5 Cents		Distribution of Heat			Nutritional Calories from Bread and Butter	Classification	No.
Protein Nutritional	Fat	Carbohydrate	Total Bomb	Total Nutritional	Protein	Fat	Carbohydrate			
					%	%	%	%		
44.2	77.1	278.2	416.8	399.5	11.1	2.0	68.9	....	Pastry and dessert	165
.....	+7.9%	+27.1%	+22.5%	+22.5%	+3.1	+14.8	+4.8	....		
.....	-7.9%	-27.1%	-22.5%	-22.5%	-3.1	-14.8	-4.8	....		
24.9	58.5	143.8	237.0	227.2	11.0	25.7	63.3	....	Pastry and dessert	166
29.4	25.6	275.7	342.3	330.7	8.9	7.7	83.4	....	Pastry and dessert	167
31.3	47.4	184.4	275.4	263.1	11.9	18.0	70.1	....	Pastry and dessert	168
21.1	21.4	174.7	225.5	217.2	9.7	9.9	80.4	....	Pastry and dessert	169
21.0	24.1	144.5	197.9	189.6	11.1	12.7	76.2	....	Pastry and dessert	170
2.9	1.2	89.8	95.0	93.9	3.1	1.3	95.6	....	Miscellaneous.....	171
12.2	1.3	117.3	135.6	130.8	9.3	1.0	89.7	....	Miscellaneous.....	172
57.0	210.5	321.2	208.7	196.2	9.8	35.1	55.1	43.4	Miscellaneous.....	173
.....	+26.1%	+5.5%	+12.7%	+13.0%	+6.6	+13.6	+7.4			
.....	-26.1%	-5.5%	-12.7%	-13.0%	-6.6	-13.6	-7.4			
19.7	79.8	205.7	156.5	152.6	6.5	26.1	67.4	....	Miscellaneous.....	174
34.8	258.4	226.9	177.9	173.3	6.7	40.7	43.6	....	Miscellaneous.....	175
28.3	19.2	221.6	147.1	139.6	13.7	6.9	79.4	....	Miscellaneous.....	176
57.7	118.8	253.3	150.8	143.3	13.4	27.6	59.0	49.8	Miscellaneous.....	177
131.8	294.9	408.0	295.5	278.3	15.8	35.4	48.8	29.7	Meats.....	178
103.2	255.6	350.1	249.8	236.3	14.6	36.0	49.4	34.0	Meats.....	179
74.3	247.9	201.9	184.4	174.7	14.2	47.3	38.5	31.3	Meats.....	180
101.2	131.4	165.4	109.4	99.5	25.4	33.0	41.6	68.1	Salads.....	181
86.0	196.0	182.0	124.5	116.0	18.5	42.2	39.3	54.9	Salads.....	182
36.5	157.8	239.6	224.2	217.0	8.4	36.4	55.2	38.4	Salads.....	183
94.1	282.8	177.5	118.3	110.9	17.0	51.0	32.0	43.0	Salads.....	184
35.7	103.1	91.4	244.2	230.2	15.5	44.8	39.7	....	Sandwiches.....	185
27.8	33.4	90.0	83.5	73.1	17.8	24.6	57.6	....	Sandwiches.....	186
34.6	111.4	123.3	141.5	134.7	12.8	41.4	45.8	....	Sandwiches.....	187
79.9	179.1	148.2	87.7	81.4	19.6	44.0	36.4	....	Sandwiches.....	188
39.2	47.9	98.7	201.4	186.0	21.4	25.2	53.4	79.1	Sandwiches.....	189
.....	+80.1%	+27.2%	+26.0%	+27.1%	+63.1	+53.6	+19.1			
.....	-82.9%	-21.4%	-24.9%	-28.5%	-34.1	-75.7	-15.9			



TABLE 7.—ANALYSES OF 242

No.	Name of Food	Constituents		Cost, Dollars	Calories in Sample	
		Food	Gm.		Total Bomb	Protein Bomb
190	Sandwich, cream cheese, walnut.....	Total sample .....	58.8	\$0.05	209.8	29.2
191	Sandwich, fried egg.....	Egg .....	38.8	.10	276.0	59.8
		Bread and butter...	49.0			
192	Sandwich, fish cake.....	Fish cake .....	56.9	.10	253.2	62.6
		Bread (no butter)..	47.5			
193	Sandwich, ham (average 18 orders)...	Ham (average) ....	18.3	.05	212.1	48.4
		Per cent. variation from average ....	+47.0%	.....	+22.0%	+28.3%
		Bread and butter (average) .....	42.4	.....	-15.4%	-22.2%
		Per cent. variation from average ....	+19.6%			
			-19.6%			
194	Sandwich, ham, with roll.....	Ham .....	13.9	.05	273.8	42.5
		Roll .....	52.4			
195	Sandwich, Minced chicken.....	Chicken .....	20.6	.05	235.1	52.5
		Bread and butter...	47.0			
196	Sandwich, minced chicken, with lettuce	Total sample .....	78.6	.10	182.3	34.7
197	Sandwich, minced ham.....	Ham .....	18.3	.05	291.1	49.0
		Bread and butter...	51.7			
198	Sandwich, minced ham, with olives....	Total sample .....	61.6	.05	219.4	44.7
199	Sandwich, minced tongue, with tea biscuits	Total sample .....	76.2	.05	239.5	49.4
200	Sandwich, oyster .....	Oyster .....	61.4	.10	321.9	50.7
		Bread .....	41.4			
201	Sandwich, Pimento, olive, cheese.....	Cheese, etc. ....	6.1	.05	159.5	25.6
		Bread and butter...	38.7			
202	Sandwich, roast beef, hot.....	Beef .....	37.4	.15	263.9	69.3
		Bread and gravy...	62.3			
203	Sandwich, roast beef, with roll.....	Roast beef .....	50.3	.05	385.9	99.7
		Roll .....	54.7			
204	Sandwich, sardine .....	Total sample .....	59.5	.05	217.9	37.1
205	Sandwich, Swiss cheese.....	Swiss cheese .....	20.8	.05	258.5	51.5
		Bread and butter...	42.5			
206	Sandwich, tomato .....	Tomatoes .....	16.0	.05	140.0	22.8
		Lettuce .....	5.1			
		Bread and butter...	43.4			
207	Sausage, country .....	Total sample .....	81.0	.05	243.9	57.6
208	Sausage, country, and French fried potatoes	Sausage .....	53.8	.15	521.7	71.5
		Potatoes and gravy	106.5			
209	Shad, baked, and dressing.....	Shad (edible) .....	149.7	.20	680.9	178.5
		Potatoes and dress- ing .....	130.6			
		Bread .....	65.5			
210	Shortcake, strawberry .....	Total sample .....	122.9	.15	283.1	27.6
211	Shredded wheat and cream.....	Shredded wheat ...	60.6	.15	494.5	56.4
		Cream .....	102.0			
212	Shredded wheat and milk.....	Shredded wheat ...	61.4	.10	404.5	81.2
		Milk .....	220.1			
213	Soup, bean, with croutons.....	Total sample .....	300.5	.10	180.8	42.5
214	Soup, chicken .....	Chicken soup .....	369.6	.15	321.1	70.6
		Bread and butter...	43.6			
215	Soup, green split pea.....	Soup .....	220.3	.10	241.1	45.9
		Bread and butter...	39.7			
216	Soup, tomato, with rice.....	Total sample .....	222.0	.10	77.5	15.7
217	Soup, vegetable .....	Soup .....	227.9	.10	206.1	35.1
		Bread and butter...	45.6			
218	Spaghetti and cheese.....	Total sample .....	212.9	.10	187.8	42.4
219	Spaghetti, baked with cheese.....	Total sample .....	168.9	.10	166.4	36.6
220	Steak, hamburger .....	Steak .....	94.0	.20	723.8	147.9
		Potatoes .....	131.0			
		Bread and butter...	59.6			
221	Steak, hamburger, with Spanish sauce	Steak .....	109.2	.20	681.3	183.3
		Spanish sauce .....	85.4			
		French fried pota- toes .....	65.7			
		Bread and butter...	61.9			

READY-TO-SERVE FOODS (Continued)

Calories in Sample			Calories for 5 Cents		Distribution of Heat			Nutritional Calories from Bread and Butter	Classification	No.
Protein Nutritional	Fat	Carbohydrate	Total Bomb	Total Nutritional	Protein	Fat	Carbohydrate			
20.9	77.7	102.9	209.8	201.5	%	%	%	64.7	Sandwiches.....	190
43.0	108.4	107.8	138.0	129.6	10.4	38.5	51.1			
44.9	48.8	141.8	126.6	117.8	16.6	41.8	41.6	....	Sandwiches.....	191
35.0	68.7	94.7	212.1	198.3	19.1	20.7	60.2	....	Sandwiches.....	192
.....	+49.0%	+22.5%	+22.0%	+21.8%	17.7	34.1	48.2	78.2	Sandwiches.....	193
.....	-34.8%	-16.1%	-15.4%	-14.9%	+28.2	+32.2	+21.4			
					-23.7	-38.4	-14.7			
30.5	118.3	118.0	273.8	261.8	11.7	43.2	45.1	....	Sandwiches.....	194
37.7	89.5	93.1	235.1	220.3	17.1	40.6	42.3	78.0	Sandwiches.....	195
24.9	49.8	97.8	91.2	86.3	14.5	28.8	56.7	....	Sandwiches.....	196
35.2	150.6	91.5	291.1	277.3	12.7	54.3	33.0	63.8	Sandwiches.....	197
32.1	99.2	75.5	219.4	206.8	15.5	48.0	36.5	....	Sandwiches.....	198
35.5	62.9	127.2	239.5	225.6	15.7	27.9	56.4	....	Sandwiches.....	199
36.4	129.0	142.2	161.0	153.8	11.8	41.9	46.3	46.3	Sandwiches.....	200
18.4	52.0	81.9	159.5	152.3	12.1	34.1	53.8	87.0	Sandwiches.....	201
49.8	82.2	112.4	88.0	81.5	20.4	33.6	46.0	....	Sandwiches.....	202
71.6	156.8	129.4	385.9	357.8	20.0	43.8	36.2	....	Sandwiches.....	203
26.6	91.3	89.5	217.9	207.4	12.3	44.0	43.2	....	Sandwiches.....	204
37.0	120.5	86.5	258.5	244.0	15.2	49.4	35.4	59.6	Sandwiches.....	205
16.4	25.1	92.1	140.0	133.6	12.3	18.8	68.9	96.5	Sandwiches.....	206
41.4	187.7	.....	243.9	227.7	17.5	82.5	.....	....	Meats.....	207
51.4	310.3	139.9	173.9	167.2	10.2	61.9	27.9	....	Meats.....	208
128.2	223.0	279.4	170.2	157.7	20.4	35.4	44.2	....	Meats.....	209
19.8	100.4	155.1	94.4	91.8	7.2	36.5	56.3	....	Pastry and dessert	210
40.5	227.8	210.3	164.8	159.5	8.4	47.6	44.0	....	Dairy dish.....	211
58.3	83.0	240.3	202.3	190.8	15.3	21.7	63.0	....	Dairy dish.....	212
30.5	44.8	93.5	90.4	84.4	18.1	26.5	55.4	....	Soups.....	213
50.7	87.4	163.1	107.0	100.4	16.8	29.0	54.2	49.5	Soups.....	214
33.0	45.3	149.9	120.6	114.1	14.5	19.9	65.6	59.4	Soups.....	215
11.3	9.7	52.1	38.8	36.6	15.4	13.3	71.3	....	Soups.....	216
25.2	37.6	133.4	103.1	98.1	12.8	19.2	68.0	79.6	Soups.....	217
30.5	21.4	124.0	93.9	88.0	17.3	12.2	70.5	....	Miscellaneous.....	218
26.3	14.2	115.6	83.2	78.1	16.8	9.1	74.1	....	Miscellaneous.....	219
106.2	288.8	287.1	181.0	170.5	15.6	42.3	42.1	29.9	Meats.....	220
131.6	225.2	272.8	170.3	157.4	20.9	35.8	43.3	33.7	Meats.....	221

TABLE 7.—ANALYSES OF 242

No.	Name of Food	Constituents		Cost, Dol- lars	Calories in Sample	
		Food	Gm.		Total Bomb	Pro- tein Bomb
222	Steak, sirloin .....	Steak .....	262.7	\$0.50	1,393.0	397.8
		Potatoes .....	96.5			
		Water cress .....	5.4			
		Bread and butter...	75.1			
223	Steak, sirloin, with onions.....	Steak .....	182.9	.55	1,314.0	369.4
		Onions .....	63.4			
		Potatoes .....	95.7			
		Bread and butter...	71.2			
224	Steak, small (average 2 orders).....	Steak (average) ...	146.5	.35	1,082.8	237.5
		Per cent. variation	+1.0%			
		from average ...	-1.0%	.....	-10.4%	-3.8%
		Potatoes (average).	70.9			
		Per cent. variation	+21.2%			
		from average ...	-21.2%			
		Bread (average) ...	70.2			
		Per cent. variation	+2.8%			
		from average ...	-2.8%			
		Butter (average) ...	9.6			
		Per cent. variation	+47.0%			
		from average ...	-47.0%			
225	Steak, small, with onions.....	Steak .....	134.5	.40	1,024.0	275.0
		Onions .....	57.7			
		Potatoes .....	96.8			
		Bread and butter...	71.2			
226	Steak, tenderloin .....	Steak .....	213.3	.55	1,268.0	349.8
		Potatoes .....	133.8			
		Bread and butter...	67.6			
227	Steak, tenderloin, with onions.....	Steak .....	222.7	.60	1,463.0	368.4
		Onions .....	46.2			
		Potatoes .....	123.7			
		Bread and butter...	97.4			
228	Stew, beef (average 9 orders).....	Stew (average) ...	408.3	.15	641.4	148.4
		Per cent. variation	+20.8%			
		from average ...	-10.8%	.....	-20.7%	-34.4%
		Bread and butter	(average) .....			
		Per cent. variation	+25.4%			
		from average ...	-35.3%			
229	Stew, lamb (average 2 orders).....	Stew (average) ...	355.9	.15	622.2	146.8
		Per cent. variation	+4.1%			
		from average ...	-4.1%	.....	-6.5%	-4.4%
		Bread and butter	(average) .....			
		Per cent. variation	+6.0%			
		from average ...	-6.0%			
230	Strawberries with cream.....	Strawberries .....	142.0	.15	280.7	17.9
		Cream .....	91.1			
231	Strawberries with ice cream.....	Total sample .....	212.1	.15	200.5	19.3
232	Tart, strawberry .....	Total sample .....	90.6			
233	Toast, buttered .....	Total sample .....	73.3	.10	311.3	42.7
234	Toast, French, with maple cane syrup	Toast .....	111.6			
		Butter .....	20.0			
		Syrup .....	40.0			
		Total sample .....	229.0	.15	333.5	59.4
235	Toast, milk .....	Total sample .....	142.5	.10	32.2	6.7
236	Tomatoes, sliced .....	Tomatoes .....	79.8			
237	Tomatoes, sliced with lettuce.....	Lettuce .....	43.2			
		Tomatoes .....	117.3	.20	57.4	12.5
		Lettuce .....	53.4			
		Dressing .....	11.6			
238	Tomatoes and lettuce with dressing..	Breaded veal .....	133.3	.20	897.8	177.8
		Potatoes and gravy	152.7			
		Bread .....	61.8			
		Butter .....	20.0			
239	Veal cutlet, breaded, with tomato sauce	Pie and dumplings.	277.0	.15	568.0	153.2
		Bread and butter...	73.6			
241	Watermelon, 2 orders.....	Edible portion .....	1,080.0	.30	244.3	27.6
242	Weakfish, baked, with dressing.....	Fish and dressing..	179.6			
		Mashed potatoes ..	119.5			
		Bread and butter...	68.7			

READY-TO-SERVE FOODS (Continued)

Calories in Sample			Calories for 5 Cents		Distribution of Heat			Nutritional Calories from Bread and Butter	Classification	No.
Protein Nutritional	Fat	Carbohydrate	Total Bomb	Total Nutritional	Protein	Fat	Carbohydrate			
285.6	685.9	309.3	139.3	128.1	% 22.3	% 53.5	% 24.2	20.1	Meats.....	222
265.2	578.4	366.2	119.5	110.0	21.9	47.8	30.3	20.1	Meats.....	223
170.5	583.5	211.8	147.5	138.0	18.0	59.6	22.4	28.3	Meats.....	224
.....	+22.8%	+8.0%	+10.4%	+11.4%	+15.0	+12.9	+19.2			
.....	-22.8%	-8.0%	-10.4%	-11.4%	-15.0	-12.9	-19.2			
197.5	447.6	301.4	128.0	118.3	20.9	47.3	31.8	25.8	Meats.....	225
251.1	543.7	374.5	115.3	106.3	21.5	46.5	32.0	19.8	Meats.....	226
264.5	632.6	462.0	121.9	113.3	19.4	46.6	34.0	24.5	Meats.....	227
106.8	234.1	258.5	213.8	199.8	18.0	38.6	43.3	35.3	Soups.....	228
.....	+37.3%	+29.4%	+24.1%	+25.4%	+39.5	+24.6	+16.7			
.....	-51.7%	-23.1%	-20.7%	-22.6%	-31.6	-36.8	-20.8			
105.4	234.7	240.7	207.4	193.6	18.2	40.1	41.7	39.6	Soups.....	229
.....	+17.8%	+3.0%	+6.5%	+6.7%	+2.2	+11.2	+9.8			
.....	-17.8%	-3.0%	-6.5%	-6.7%	-2.2	-11.2	-9.8			
12.9	20.0	242.8	93.6	91.9	4.6	7.3	88.1	....	Fruit.....	230
13.9	64.5	116.7	66.8	65.0	7.1	33.1	59.8	....	Fruit.....	231
8.1	140.2	73.6	112.6	111.0	3.6	63.2	33.2	....	Pastry and dessert	232
30.7	87.1	181.5	155.7	149.7	10.2	29.1	60.7	....	Miscellaneous.....	233
63.4	388.4	265.0	185.4	179.2	8.8	54.2	37.0	....	Miscellaneous.....	234
47.2	99.5	174.6	111.2	105.6	13.5	31.4	55.2	....	Miscellaneous.....	235
4.8	.....	25.5	16.1	15.2	15.8	.....	84.2	....	Miscellaneous.....	236
5.9	.....	43.9	17.4	16.6	11.8	.....	88.2	....	Miscellaneous.....	237
8.9	.....	44.9	14.4	13.5	16.5	.....	83.5	....	Miscellaneous.....	238
127.7	349.4	370.6	224.5	211.9	15.1	41.2	48.7	33.0	Meats.....	239
110.0	136.2	278.6	189.3	174.9	21.0	25.9	53.1	47.9	Meats.....	240
19.8	.....	216.7	40.7	39.4	8.4	.....	91.6	....	Fruit.....	241
112.5	159.3	243.7	139.9	128.9	21.8	30.9	47.3	45.0	Meats.....	242



TABLE 8.—SPECIAL TABLES OF ORDERS REPEATEDLY ANALYZED

## A. BOSTON BAKED BEANS, PRICE 10 CENTS

No.	Constituents†		Calories in Sample					Total Nutritional Calories for 5 Cents
	Baked Beans	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	176.0	45.2	398.9	98.4	54.7	245.8	67.1	183.8
2	175.2	43.7	551.3	88.2	220.9	242.2	63.3	263.2
3	228.5	49.6	524.9	115.4	106.2	303.3	82.8	246.2
4	215.1	46.4	645.0	108.3	259.5	277.2	77.8	307.3
5	233.0	54.9	510.2	118.0	70.9	321.3	84.7	238.5
6	215.5	*	480.9	89.1	136.8	205.0	63.9	202.9

\* No bread given. † In grams.

## B. NEW YORK BAKED BEANS, PRICE 10 CENTS

No.	Constituents		Calories in Sample					Total Nutritional Calories for 5 Cents
	Baked Beans	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	210.5	47.5	450.5	110.5	83.1	256.9	79.3	209.7
2	161.3	49.5	447.3	104.7	68.6	274.0	75.2	208.9
3	181.0	42.4	415.6	94.3	88.6	232.7	67.7	194.5
4	162.2	52.4	638.3	116.8	201.6	319.9	83.9	302.7
5	235.2	49.4	602.6	123.9	190.6	283.1	89.0	233.9
6	254.6	49.3	511.8	124.9	76.3	310.6	89.7	238.3
7	136.2	43.3	362.5	81.9	75.6	205.0	58.8	169.7

## C. TWO FRIED EGGS, PRICE 15 CENTS

No.	Constituents		Calories in Sample					Total Nutritional Calories for 5 Cents
	Fried Eggs	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	93.1	72.2†	507.0	103.3	242.5	161.2	74.2	159.3
2	76.2	96.7	548.6	108.3	217.2	223.1	77.7	172.7

† Graham bread.

## D. CABINET PUDDING WITH VANILLA SAUCE, PRICE 5 CENTS

No.	Total Sample	Calories in Sample					Total Nutritional Calories for 5 Cents
		Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	241.9	510.2	73.6	83.2	353.4	52.3	489.4
2	193.6	323.4	49.5	71.0	202.9	35.6	309.5



TABLE 8.—Continued

## E. CORNED BEEF SANDWICH, PRICE 5 CENTS

No.	Constituents†		Calories in Sample					Total Nutritional Calories for 5 Cents
	Corned Beef	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	56.2	‡‡	180.7	48.8	40.9	91.0	85.1	167.0
2	16.5	46.2	203.2	42.6	73.9	86.7	30.6	191.2
3	11.6	46.3	176.9	44.9	35.5	96.5	32.2	164.2
4	24.5	43.8	253.7	61.1	86.3	106.3	43.9	236.5
5	8.6	42.8	182.6	34.0	57.5	91.1	24.4	173.0
6	19.4	36.1	186.0	57.9	50.6	77.5	41.6	169.7
7	21.0	45.0	216.3	60.6	44.2	111.5	43.5	199.2
8	14.4	43.7	234.6	55.2	59.5	119.9	39.6	219.0
9	17.7	50.5	227.7	62.6	47.0	118.1	44.9	210.0
10	17.7	38.9	180.6	55.4	35.7	89.5	39.8	165.0
11	25.3	43.8	242.9	76.0	52.9	114.0	54.6	221.5
12	10.0	40.7	168.6	41.7	31.6	90.3	30.0	156.9
13	16.4	42.4	206.6	56.5	45.0	105.1	40.6	190.7
14	12.9	43.2	212.0	51.2	64.3	96.5	36.8	197.6
15	22.4	37.7	199.7	61.7	52.0	85.4	44.3	182.3
16	24.5	47.8	241.7	59.4	56.8	125.5	42.7	225.0
17	23.0	31.8	151.2	64.7	8.2	73.3	46.4	132.9
18	10.8	40.3	160.7	48.3	18.8	93.6	34.7	147.1

‡‡ Total sample.

† In grams.

## F. CREAM, PRICE 15 CENTS

No.	Total Sample	Calories in Sample					Total Nutritional Calories for 5 Cents
		Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	239.0	515.9	35.5	450.3	30.1	25.5	168.7
2	102.0‡	245.1	14.2	221.0	9.9	10.2	120.6

‡ Served with shredded wheat; charge for cream 10 cents.

## G. HAM SANDWICH, PRICE 5 CENTS

No.	Constituents		Calories in Sample					Total Nutritional Calories for 5 Cents
	Ham	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	§§	58.3	184.3	47.7	40.8	95.8	34.2	170.8
2	15.7	50.7	243.2	46.3	102.4	94.5	33.3	230.2
3	15.2	45.1	212.2	42.8	72.4	97.0	30.7	200.1
4	14.5	42.1	221.3	39.5	94.8	87.0	28.4	210.2
5	19.3	41.8	224.1	48.6	81.6	93.9	34.9	210.4
6	16.7	34.1	196.8	43.1	74.1	79.6	31.0	184.7
7	26.9	46.5	259.0	62.1	87.1	109.3	44.6	241.5
8	24.3	43.8	248.5	61.8	70.7	116.0	44.4	231.1
9	20.4	39.6	222.7	48.7	84.5	89.5	34.9	208.9
10	15.9	39.7	205.8	43.6	73.1	89.1	31.3	193.5
11	19.9	50.2	219.9	61.7	42.6	115.6	44.3	202.5
12	9.0	43.9	179.4	38.4	42.5	96.5	27.6	163.6
13	20.0	37.8	198.5	57.6	50.7	90.2	41.3	182.2
14	16.3	46.2	245.8	49.6	100.6	95.6	35.6	231.8
15	24.3	39.7	204.0	54.1	64.1	85.8	38.9	188.8
16	18.7	39.0	184.4	37.6	52.4	94.4	27.0	173.8
17	16.4	35.4	180.6	42.3	58.8	79.5	30.4	168.7
18	17.8	40.3	186.5	50.6	42.6	93.3	36.3	172.2

§§ Total sample.

TABLE 8.—Continued  
H. RICE CROQUETTES WITH BACON, PRICE 15 CENTS

No.	Constituents†				Calories in Sample					Total Nutritional Calories for 5 Cents
	Rice Croquettes	Bacon	Potatoes and Sauce	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	114.1	4.7	150.3	75.3	688.5	84.1	265.4	339.0	60.4	221.6
2	80.2	5.0	114.5	74.1	533.4	74.5	155.6	308.3	58.5	170.8

† In grams.

I. SMALL STEAK, PRICE 35 CENTS

No.	Constituents				Calories in Sample					Total Nutritional Calories for 5 Cents
	Steak	Potatoes	Bread	Butter	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	145.1	55.7	68.2	5.1	925.4	246.8	449.8	228.8	177.2	122.3
2	147.9	86.0	72.2	14.1	1140.1	228.1	717.2	194.8	163.8	153.7

J. TOMATO OMELET, PRICE 20 CENTS

No.	Constituents			Calories in Sample					Total Nutritional Calories for 5 Cents
	Omelet	Potatoes	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	170.5	78.5	76.5	633.2	83.3	205.2	344.7	59.8	121.9
2	178.9	§	112.6*	738.5	145.6	313.5	279.4	104.5	174.4

§ No potatoes given.

\* Rolls and butter

K. PLAIN OMELET, PRICE 15 CENTS

No.	Constituents			Calories in Sample				Total Nutritional Calories for 5 Cents
	Omelet	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	170.8	69.6	534.9	118.0	230.6	186.3	84.7	167.2
2	109.2	63.9	531.5	113.0	272.8	145.7	81.8	166.5
3	116.3	104.1	679.5	137.6	320.2	221.7	98.8	213.6
4	113.6	84.1	556.7	134.9	248.1	173.7	96.9	172.9
5	113.7	44.1	476.1	110.0	247.6	118.5	79.0	148.3
6	105.7	68.8	484.2	103.1	209.4	171.7	74.0	151.7
7	101.1	43.4	451.2	99.5	249.7	102.0	71.4	141.0
8	111.4	70.3	521.6	121.2	256.4	144.0	87.0	162.5

TABLE 8.—Continued

## L. CREAMED CODFISH ON TOAST, PRICE 15 CENTS

No.	Constituents†			Calories in Sample					Total Nutritional Calories for 5 Cents
	Creamed Codfish	Toast	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	146.4	46.8	81.0	617.4	163.2	189.1	265.1	117.2	190.5
2	159.2	41.3	60.5‡	518.2	148.0	124.9	245.3	106.3	158.8

‡ Bread not buttered. † In grams.

## M. CREAMED CHIPPED BEEF, PRICE 15 CENTS

No.	Constituents		Calories in Sample					Total Nutritional Calories for 5 Cents
	Chipped Beef	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	181.7	84.6#	536.3	160.1	148.0	228.2	115.0	163.7
2	210.2	73.7						

# Sample lost in desiccation.

## N. CREAMED CHICKEN ON TOAST, PRICE 20 CENTS

No.	Constituents		Calories in Sample					Total Nutritional Calories for 5 Cents
	Chicken and Toast	Butter and Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	183.3	79.0#	400.2	102.3	88.5	209.4	73.5	92.9
2	160.7	40.6						

# Sample lost in desiccation.

## O. WHEAT CAKES WITH MAPLE CANE SYRUP, PRICE 10 CENTS

No.	Total Sample	Calories in Sample					Total Nutritional Calories for 5 Cents
		Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	217.6	543.5	59.6	116.1	367.8	42.8	263.4
2	179.7	438.7	41.6	75.9	321.2	29.9	213.5
3	192.8	512.5	58.9	128.4	325.2	42.3	248.0
4	182.1	464.1	46.5	128.2	289.4	33.4	225.5
5	193.6	484.5	51.8	127.7	305.0	37.2	235.0
6	163.1	413.6	41.0	74.7	297.9	29.5	201.1

TABLE 8.—Continued  
P. OYSTER SANDWICH, PRICE 10 CENTS

No.	Constituents†		Calories in Sample					Total Nutritional Calories for 5 Cents
	Fried Oyster	Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	36.4	47.0#	321.9	50.7	129.0	142.2	36.4	153.8
2	61.4	41.4						

# Sample lost in desiccation. † In grams.

Q. DEVILED CRAB, PRICE 20 CENTS

No.	Constituents			Calories in Sample					Total Nutritional Calories for 5 Cents
	Crab (edible)	Buttered Bread	Water Cress	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	71.7	68.2	11.2	350.3	78.3	96.0	176.0	56.2	82.1
2	91.0	63.7	19.5	422.8	91.5	116.4	214.9	65.7	99.2

R. GRAHAM CRACKERS, PRICE 5 CENTS

No.	Total Sample	Calories in Sample					Total Nutritional Calories for 5 Cents
		Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	49.1	219.4	21.7	47.6	150.1	15.6	213.3
2	106.2¶¶	471.0	42.5	99.9	328.6	30.5	229.5

¶¶ Two portions

S. LAMB STEW, PRICE 15 CENTS

No.	Constituents		Calories in Sample					Total Nutritional Calories for 5 Cents
	Lamb Stew	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	341.2	71.3	663.1	153.3	276.3	233.5	110.0	206.6
2	370.6	63.2	581.2	140.2	193.1	247.9	100.7	180.6

T. LARGE OYSTER FRY, PRICE 25 CENTS

No.	Constituents		Calories in Sample					Total Nutritional Calories for 5 Cents
	Fried Oysters	Buttered Bread	Total Bomb	Protein	Fat	Carbohydrate	Protein Nutritional	
1	181.9	91.5	853.7	120.7	366.1	366.9	86.6	163.9
2	201.7	74.3	834.9	130.1	363.4	341.4	93.4	159.6

TABLE 8.—Continued  
U. HAM AND EGGS, PRICE 25 CENTS

No.	Constituents†				Calories in Sample					Total Nutritional Calories for 5 Cents
	Ham	Eggs	Pota- toes	But- tered Bread	Total Bomb	Pro- tein	Fat	Car- bo- hy- drate	Pro- tein Nutri- tional	
1	55.3	73.4	52.5	83.5	826.2	170.5	395.0	260.7	122.4	155.6
2	53.8	59.5	66.0	75.7	870.9	159.9	457.9	253.1	114.8	165.2
3	62.6	86.3	78.4	73.8	873.5	199.1	393.9	280.5	142.9	163.5
4	57.5	76.3	77.4	87.8	941.5	215.5	438.5	287.5	154.7	176.1
5	39.6	69.1	83.8	39.4	668.7	169.2	322.6	176.9	121.5	124.2
6	75.2	57.4	125.1	73.7	969.0	184.2	433.5	351.3	132.3	183.4
7	42.7	84.1	78.5	68.2	853.5	176.4	451.7	225.4	126.7	160.8
8	52.6	88.5	66.4	54.0	776.3	187.1	417.8	171.4	134.3	144.7
9	43.7	66.6	83.0	64.3	803.4	175.2	396.6	231.6	125.8	150.3

|| Toast, two slices instead of bread, three slices. † In grams.

V. BEEF STEW WITH VEGETABLES, PRICE 15 CENTS

No.	Constituents		Calories in Sample					Total Nutritional Calories for 5 Cents
	Stew	Buttered Bread	Total Bomb	Pro- tein	Fat	Carbo- hydrate	Pro- tein Nutri- tional	
1	391.5	53.1**	509.6	162.3	113.0	234.3	116.5	154.6
2	337.8	70.4	742.2	182.1	323.7	236.4	130.7	230.3
3	493.9	75.5	797.3	162.7	300.4	334.2	116.8	250.5
4	390.0	70.7	634.6	103.6	246.4	284.6	74.4	201.8
5	364.9	44.4††	546.6	97.7	258.3	208.6	70.2	179.0
6	373.6	77.5	684.3	173.1	215.4	295.8	124.3	211.8
7	403.0	51.2	644.5	147.2	238.6	258.7	105.7	201.0
8	426.3	40.0††	539.7	152.5	238.5	198.7	109.5	182.2
9	443.3	68.4	606.0	158.0	172.4	275.6	113.5	187.2

\*\* Bread not buttered.

†† Two slices of bread.

W. BUTTER CAKES, PRICE 5 CENTS

No.	Butter Cakes and Butter	Calories in Sample					Total Nutritional Calories for 5 Cents
		Total Bomb	Pro- tein	Fat	Carbo- hydrate	Pro- tein Nutri- tional	
1	90.9	268.1	43.4	66.7	158.0	31.2	255.9
2	101.4	313.8	43.8	75.8	189.2	35.0	300.0



## VI. DISCUSSION OF RESULTS

Of forty-seven (47) orders classed as pastry and dessert there was obtained a mean of 233.0 nutritional calories for 5 cents, the highest of the class being Napoleon with 453.6 calories and the lowest strawberry shortcake with 91.8 calories.

Of twenty-four (24) orders classed as beans there was obtained a mean of 204.5 nutritional calories for 5 cents, the highest of the class being Boston baked beans with 307.6 calories and the lowest Boston beans "on the side" with 133.7 calories.

Of fifty-six (56) orders classed as sandwiches there was obtained a mean of 180.3 nutritional calories for 5 cents, the highest of the class being roast beef sandwich with roll with 357.8 calories and the lowest sliced chicken sandwich with 78.1 calories.

Of twelve (12) orders classed as dairy dishes there was obtained a mean of 174.4 nutritional calories for 5 cents, the highest of the class being milk crackers with 317.1 calories and the lowest cream of wheat with 63.0 calories.

Of eighty-seven (87) orders classed as meats there was obtained a mean of 174.1 nutritional calories for 5 cents, the highest of the class being lamb croquettes and mashed potatoes with 291.4 calories and the lowest deviled crab with 83.0 calories.

Of forty-four (44) orders classed as miscellaneous there was obtained a mean of 164.7 nutritional calories for 5 cents, the highest of the class being corn muffins with 342.2 calories and the lowest tomatoes and lettuce with dressing with 13.5 calories.

Of six (6) orders classed as oysters, there was obtained a mean of 149.4 nutritional calories for 5 cents, the highest of the class being oyster pie with 220.4 calories and the lowest raw oysters with 18.6 calories.

Of thirty-three (33) orders classed as eggs there was obtained a mean of 140.7 nutritional calories for

5 cents, the highest of the class being plain omelet with 231.5 calories and the lowest two poached eggs on toast with 65.6 calories.

Of four (4) orders classed as salads there was obtained a mean of 135.9 nutritional calories for 5 cents, the highest of the class being potato salad with 217.0 calories and the lowest crab meat salad with 99.5 calories.

Of seventeen (17) orders classed as soups there was obtained a mean of 116.0 nutritional calories for 5 cents, the highest of the class being beef stew with 251 calories and the lowest tomato soup with rice with 36.6 calories.

Of fourteen (14) orders classed as fruits there was obtained a mean of 88.8 nutritional calories for 5 cents, the highest of the class being baked apple with cream with 196.0 calories and the lowest cantaloup with 12.1 calories.

The order containing the highest number of nutritional calories for 5 cents was Napoleons, containing 453.6 calories, and the lowest cantaloup with 12.1 calories for 5 cents.

The order containing the highest number of nutritional calories regardless of cost was tenderloin steak with onions with 1,351 calories and costing 60 cents, the lowest sliced pineapple with 35.3 calories and costing 5 cents.

Of the orders containing bread the fractional part of the nutritional energy of the order from this source averages 43.7 per cent. of the total.

An analysis of champagne is included in the list merely for comparison with the low orders of fruits and vegetables. The champagne (a pint of Mumm's extra dry) was purchased at Charles & Company. It has been assumed in the calculation in the analysis of this item that the alcohol content is used quantitatively as energy. The energy content of a cup of coffee was

determined, and attention is called to the fact that the sample contained both cream and sugar. In cases of so-called breakfast foods, the values given herein represent values as purchased in the restaurant, and not those which would have been obtained by purchasing in original packages.

Table 9 shows the cost of 2,500 calories, each order having been calculated to this unit for comparison. This has been done because a man of average weight leading a sedentary life requires 2,500 calories daily to maintain him in health and strength.

The estimated wholesale cost of ingredients per portion was calculated by Miss Laura A. Cauble, special investigator, Bureau of Food Supplies, Association for the Improvement of the Conditions of the Poor. This was done in order that the housewife could realize the actual cost of such orders in case care is exercised in the purchasing of supplies. Wholesale instead of retail prices were used because of the variation of the latter in different localities. The basis of these calculations were obtained from the appended Table 10, showing the wholesale cost of food supplies. In calculating the wholesale cost of ingredients, no allowance has been made for labor, fuel, rent, etc., the cost as shown being the estimated wholesale cost of the raw materials.

A study of Table 9 shows that the majority of the orders are reasonably cheap, for the cost of maintenance, that is, 2,500 calories, by means of the common and popular orders, usually falls between 50 cents and \$1.00. Table 11 shows a summary of the cost table and hardly requires an explanation. It will be seen that each of 34 orders supplies 2,500 calories for 50 cents or less, 18 of the number being classed as pastry and dessert; each of 157 orders supplies 2,500 calories for 50 cents to \$1.00, 60 of which are meat orders; each of 39 orders supplies 2,500 calories for \$1.00 to \$1.50, 10 of which are meat orders.

Thirty-four per cent. of orders costing \$1.00 or less per 2,500 calories were meat orders.

For 50 cents to \$1.00, 2,500 calories were secured in 63 per cent. of all orders.

In view of the fact that 80 per cent. of all the orders purchased by us supplied 2,500 calories for \$1.00 or less, and that 35 per cent. of this number were meat orders, it can hardly be argued that we are in the midst of the "high cost of living."

Attention should not be diverted from the fact that a few orders are extremely high in cost, but these should be especially noted. They are few in number and are the price of flavor.

Table 12 is a classified list of portions arranged in groups according to their caloric value and lends an easy means of dietary regulation. It is possible at a glance to choose a number of articles to total the desired food value of the meal, noting in each instance the individual food value in round numbers of the portion as well as the cost.

A study of the general table will show well balanced rations and a mean of all orders purchased shows that 13.2 per cent. of the total heat is derived from protein, this being an excellent physiologic mean.



TABLE 9.—COST OF 2,500 CALORIES

Name of Food	Cost per Portion	Estimated Wholesale Cost of Ingredients per Portion	Nutritional Calories per Portion	Nutritional Calories for Five Cents	Cost of 2,500 Calories
Apple, baked .....	\$0.05	\$0.005	136.8	136.8	\$0.91
Apple, baked, with cream....	.10	.029	392.0	196.0	.64
Apple, baked, with ice cream..	.10	.....	272.0	136.0	.92
Apple fritters with fruit sauce	.10	.....	323.4	161.7	.77
Apple sauce with whipped cream .....	.05	.....	144.2	144.2	.87
Asparagus, creamed on toast	.20	.....	196.8	49.2	2.54
Bacon, broiled .....	.20	.....	741.0	185.3	.67
Bacon and eggs.....	.25	.....	776.3	155.3	.81
Bacon, fried, with French fried potatoes .....	.20	.077	832.4	208.1	.60
Bananas, sliced .....	.05	.....	89.9	89.9	1.39
Bananas, sliced, with cream...	.10	.....	252.3	126.2	.99
Beans, baked, with macaroni..	.15	.....	587.3	195.8	.64
Beans, Boston baked .....	.10	.029	480.6	240.3	.52
Beans, Boston, on the side....	.05	.....	133.7	133.7	.94
Beans, New York baked.....	.10	.041	459.4	229.7	.54
Beans, New York, on the side	.05	.....	223.4	223.4	.56
Beans, New York baked, with tomato sauce .....	.10	.....	403.0	201.5	.62
Beef cakes with brown gravy and macaroni .....	.15	.....	674.4	224.8	.56
Beef, chipped, and scrambled eggs .....	.20	.....	730.8	182.7	.68
Beef, corned .....	.15	.024	397.2	132.4	.94
Beef, corned, and Boston beans .....	.15	.....	500.2	166.7	.75
Beef, corned, and New York beans .....	.15	.....	537.4	179.1	.70
Beef, corned, hash and poached egg .....	.20	.....	635.7	158.9	.79
Beef, corned, hash browned in pan .....	.15	.045	510.8	170.3	.73
Beef, corned, hash, browned with two poached eggs.....	.25	.....	750.7	150.1	.83
Beef, corned, hash, steamed...	.15	.050	508.0	169.3	.74
Beef, corned, hash, steamed, with poached egg.....	.20	.061	535.2	133.8	.93
Beef, corned, with potato salad .....	.15	.....	429.4	143.1	.87
Beef, creamed chipped.....	.15	.053	491.2	163.7	.76
Beef, creamed chipped, on toast .....	.15	.055	747.6	249.2	.50
Beef, roast, cold .....	.15	.....	420.3	140.1	.89
Beef, roast, croquettes with macaroni .....	.15	.....	625.0	208.3	.60
Beef, roast, croquettes with spaghetti .....	.15	.....	549.0	183.0	.68
Beef, roast, cutlet and mashed potatoes .....	.15	.....	617.0	205.7	.61
Beef, roast, cutlet with tomato sauce .....	.15	.....	739.6	246.5	.51
Beef, roast, hash, browned...	.15	.....	666.3	222.1	.56
Beef, roast sirloin of, and mashed potatoes .....	.20	.....	499.6	124.9	1.00
Beef, roast, with potato salad	.25	.....	537.1	107.4	1.16
Blackberries and cream.....	.10	.....	220.8	110.4	2.21
Bread, hot corn.....	.10	.....	457.1	228.6	.55
Bulgazoon .....	.05	.017	132.1	132.1	.95
Buns, bath .....	.05	.009	357.5	357.5	.35



TABLE 9.—COST OF 2,500 CALORIES—(Continued)

Name of Food	Cost per Portion	Estimated Wholesale Cost of Ingredients per Portion	Nutritional Calories per Portion	Nutritional Calories for Five Cents	Cost of 2,500 Calories
Cakes, buckwheat, with country sausage .....	\$0.20	.....	618.9	154.7	\$0.81
Oakes, buckwheat, with maple cane syrup .....	.10	\$0.037	416.5	208.3	.60
Oakes, butter .....	.05	.021	278.0	278.0	.45
Oakes, chocolate spice .....	.05	.....	324.0	324.0	.39
Cake, cocoanut .....	.05	.....	204.6	204.6	.61
Cake, coffee .....	.05	.026	290.2	290.2	.43
Cakes, cornmeal with maple cane syrup .....	.10	.032	550.3	275.2	.45
Cake, banana layer .....	.05	.....	253.4	253.4	.49
Cake, chocolate layer .....	.05	.....	212.4	212.4	.59
Cake, walnut layer with marshmallow icing .....	.05	.....	323.2	323.2	.39
Cake, old fashioned molasses .....	.05	.....	281.9	281.9	.44
Cake, pound .....	.10	.....	382.9	191.5	.65
Cakes, rice with maple cane syrup .....	.15	.....	556.8	185.6	.67
Oakes, wheat, with maple cane syrup .....	.10	.043	462.1	231.1	.54
Cantaloupe .....	.15	.....	36.2	12.1	10.33
Champagne* .....	2.00	.....	344.9	8.6	14.53
Charlotte russe .....	.05	.....	156.5	156.5	.80
Chicken, creamed, on toast .....	.20	.....	371.4	92.9	1.35
Chicken croquette and French fried potatoes .....	.15	.070	477.9	159.3	.78
Chicken cutlet and mashed potatoes .....	.15	.....	573.7	191.2	.65
Chicken giblets on toast .....	.20	.....	612.1	153.0	.82
Chicken hash .....	.15	.....	440.8	146.9	.85
Chicken wings on toast .....	.20	.043	672.8	168.2	.74
Clam chowder .....	.20	.040	402.4	100.6	1.24
Cocoa .....	.05	.009	247.5	247.5	.50
Codfish, creamed, on toast .....	.15	.....	524.0	174.7	.72
Coffee, cup of (contained cream and sugar) .....	.05	.017	195.2	195.2	.64
Corn, stewed .....	.05	.....	52.5	52.5	2.38
Corn flakes and milk .....	.10	.....	222.1	111.1	1.12
Cornstarch, chocolate, with cream .....	.05	.029	231.6	231.6	.54
Cornstarch, chocolate, with whipped cream .....	.05	.....	159.6	159.6	.78
Cornstarch, strawberry, with whipped cream .....	.05	.....	102.2	102.2	1.22
Cornstarch, vanilla, with cream .....	.05	.028	206.5	206.5	.61
Crab, deviled .....	.20	.....	362.7	90.7	1.38
Crackers, graham .....	.05	.....	223.3	223.3	.56
Crackers, milk .....	.05	.....	317.1	317.1	.39
Crackers, milk, and milk .....	.10	.....	461.0	230.5	.54
Crackers, soda, and milk .....	.10	.....	377.2	188.6	.66
Cream .....	.15	.....	505.9	168.7	.74
Cream roll .....	.05	.015	225.1	225.1	.55
Cream of wheat .....	.10	.....	125.9	63.0	1.98
Crullers .....	.05	.017	444.0	444.0	.28
Custard, baked apple, with whipped cream .....	.10	.....	262.9	131.5	.95
Custard, cup .....	.10	.019	219.0	109.5	1.14
Eclair, chocolate .....	.05	.017	188.0	188.0	.67

\* Not purchased in the restaurant.

TABLE 9.—COST OF 2,500 CALORIES—(Continued)

Name of Food	Cost per Portion	Estimated Wholesale Cost of Ingredients per Portion	Nutritional Calories per Portion	Nutritional Calories for Five Cents	Cost of 2,500 Calories
Eggs, boiled (2).....	\$0.15	\$0.069	364.8	121.6	\$1.03
Eggs, creamed, on toast.....	.20	.090	622.5	155.6	.80
Eggs, fried (2).....	.15	.069	498.1	166.0	.75
Egg plant fried in butter.....	.15	.....	626.0	208.7	.60
Eggs, poached, on toast (2)..	.20	.062	262.4	65.6	1.91
Eggs, scrambled (2).....	.15	.071	438.9	146.3	.85
Fish cakes with macaroni.....	.20	.....	507.6	126.9	.99
Fish cakes with poached egg..	.20	.....	587.3	141.8	.88
Fish cakes with spaghetti.....	.20	.....	482.4	120.6	1.04
Fish cakes with tomato sauce	.15	.025	483.7	161.2	.78
Frankfurters and potato salad .....	.15	.....	587.7	195.9	.64
Grape fruit .....	.15	.....	77.3	25.8	4.85
Ham, broiled .....	.20	.081	892.2	223.1	.56
Ham, cold .....	.15	.....	550.4	183.5	.68
Ham croquettes .....	.10	.....	526.1	263.1	.47
Ham, fried .....	.25	.076	434.2	86.8	1.44
Ham and beans (Boston).....	.15	.....	604.0	201.3	.62
Ham and beans (New York)..	.15	.....	619.8	206.6	.61
Ham and eggs.....	.25	.115	791.2	158.3	.79
Ham, minced, and scrambled eggs .....	.20	.....	727.7	181.9	.69
Ham and potato salad.....	.20	.....	632.5	158.1	.79
Ice cream strawberry.....	.10	.025	204.1	102.1	1.22
Ice cream, vanilla.....	.10	.023	227.5	113.8	1.10
Jelly, pineapple fruit, with whipped cream .....	.05	.....	109.8	109.8	1.14
Jelly, strawberry fruit, with whipped cream .....	.05	.....	154.9	154.9	.81
Lamb chops (2).....	.30	.134	811.6	135.3	.92
Lamb chops breaded, with mashed potatoes .....	.20	.....	530.8	132.7	.94
Lamb croquette and mashed potatoes .....	.15	.049	874.2	291.4	.43
Lamb cutlet and mashed potatoes .....	.15	.....	616.2	205.4	.61
Lamb pie, baked, individual..	.15	.....	563.2	187.7	.67
Liver and bacon.....	.25	.064	747.2	149.4	.84
Liver and bacon with Lyonnaise potatoes .....	.25	.....	755.0	151.0	.83
Liver and onions with French fried potatoes .....	.20	.....	800.2	200.1	.62
Liver, fried, and mashed potatoes .....	.15	.....	494.3	164.8	.76
Macaroni, side order.....	.05	.....	125.8	125.8	.99
Macaroni, baked, and cheese..	.10	.....	363.2	181.6	.69
Mackerel, broiled salt, with mashed potatoes .....	.20	.086	768.7	192.2	.65
Maple flakes with milk.....	.10	.....	265.3	132.6	.94
Meat cakes, German, French fried potatoes .....	.15	.....	853.4	284.5	.44
Meat cakes, German, with Lyonnaise potatoes .....	.15	.....	739.2	246.4	.51
Milk .....	.10	.034	290.5	145.3	.86
Muffins, corn .....	.05	.018	342.2	342.2	.37
Napoleon .....	.05	.029	453.6	453.6	.28
Oatmeal, fresh cooked, with cream .....	.15	.038	383.0	127.7	.98
Omelet, chicken .....	.25	.086	454.1	90.8	1.38
Omelet, ham .....	.20	.085	662.4	165.6	.75

TABLE 9.—COST OF 2,500 CALORIES—(Continued)

Name of Food	Cost per Portion	Estimated Wholesale Cost of Ingredients per Portion	Nutritional Calories per Portion	Nutritional Calories for Five Cents	Cost of 2,500 Calories
Omelet, macaroni and tomato sauce .....	\$.25	.....	595.6	119.1	\$1.05
Omelet, onion .....	.20	\$.070	516.5	129.1	.97
Omelet, parsley .....	.20	.068	460.9	115.2	1.09
Omelet, plain .....	.15	.065	496.5	165.5	.75
Omelet, Spanish with French fried potatoes .....	.25	.098	659.7	132.1	.95
Omelet, tomato .....	.20	.....	697.4	174.4	.72
Omelet, tomato with potatoes .....	.25	.....	609.7	121.9	1.08
Oysters, fry, large .....	.25	.....	809.0	161.8	.77
Oyster fry, plain with bacon .....	.30	.....	1,030.5	171.8	.73
Oyster fry, small .....	.20	.096	696.6	174.2	.72
Oyster pie .....	.15	.069	661.1	220.4	.57
Oysters, raw .....	.15	.....	55.9	18.6	6.72
Pie, apple .....	.05	.009	337.2	337.2	.37
Pie, blackberry .....	.10	.....	355.8	177.9	.70
Pie, cherry .....	.10	.....	383.0	191.5	.65
Pie, cocoanut .....	.05	.....	372.9	372.9	.34
Pie, huckleberry .....	.10	.....	359.4	179.7	.70
Pie, lemon .....	.05	.017	279.7	279.7	.45
Pie, mince .....	.10	.036	388.1	194.1	.64
Pie, peach .....	.10	.....	363.7	181.8	.69
Pie, pineapple .....	.05	.....	347.4	347.4	.36
Pie, pumpkin .....	.05	.....	296.1	296.1	.42
Pie, rhubarb .....	.05	.009	286.8	286.8	.44
Pie, strawberry .....	.10	.013	376.0	188.0	.66
Pineapple, sliced .....	.05	.....	35.3	35.3	3.54
Pork and beans, Boston .....	.15	.....	829.9	276.6	.45
Pork and beans, New York .....	.15	.....	595.9	198.7	.63
Potatoes, French fried (extra order) .....	.10	.033	320.8	160.4	.78
Pudding, bread, with vanilla sauce .....	.05	.029	298.4	298.4	.42
Pudding, bread, custard .....	.05	.....	355.4	355.4	.35
Pudding, cabinet, with vanilla sauce .....	.05	.....	399.5	399.5	.31
Pudding, Indian, with maple sauce .....	.05	.....	227.2	227.2	.55
Pudding, New England, with vanilla sauce .....	.05	.....	330.7	330.7	.38
Pudding, rice, cold .....	.05	.030	263.1	263.1	.47
Pudding, tapioca, apple .....	.05	.004	217.2	217.2	.57
Pudding, Tapioca, creamed .....	.05	.015	189.6	189.6	.66
Rhubarb, stewed .....	.05	.....	93.9	93.9	1.33
Rice, boiled (side order) .....	.05	.002	130.8	130.8	.96
Rice croquettes with bacon .....	.15	.....	583.7	196.2	.64
Rice, hot, with butter .....	.10	.....	305.2	152.6	.82
Rice, hot, with cream .....	.15	.....	520.1	173.3	.72
Rice, hot, with milk .....	.10	.....	279.1	139.6	.90
Rice, hot, with poached egg .....	.15	.049	429.8	143.3	.87
Roast, Vienna, with French fried potatoes .....	.15	.070	834.7	278.3	.45
Roast, Vienna, and spaghetti and potatoes .....	.15	.054	708.9	236.3	.53
Roast, Vienna, with stewed tomatoes .....	.15	.....	524.1	174.7	.72
Salad, crab meat .....	.20	.....	398.0	99.5	1.26
Salad, egg .....	.20	.....	464.0	116.0	1.08
Salad, potato .....	.10	.028	433.9	217.0	.53
Salad, tuna fish .....	.25	.090	554.4	110.9	1.13

TABLE 9.—COST OF 2,500 CALORIES—(Continued)

Name of Food	Cost per Portion	Estimated Wholesale Cost of Ingredients per Portion	Nutritional Calories per Portion	Nutritional Calories for Five Cents	Cost of 2,500 Calories
Sandwich, American cheese....	\$0.05	.....	230.2	230.2	\$0.54
Sandwich, chicken, sliced.....	.10	\$0.027	156.2	78.1	1.60
Sandwich, chicken salad.....	.10	.....	269.3	134.7	.93
Sandwich, club.....	.25	.065	407.2	81.4	1.54
Sandwich, corned beef.....	.05	.020	186.0	186.0	.67
Sandwich, cream cheese walnut	.05	.026	201.5	201.5	.62
Sandwich, fried egg.....	.10	.036	259.2	129.6	.96
Sandwich, fish cake.....	.10	.....	235.5	117.8	1.06
Sandwich, ham.....	.05	.021	198.3	198.3	.63
Sandwich, ham, with roll....	.05	.....	261.8	261.8	.48
Sandwich, minced chicken.....	.05	.026	220.3	220.3	.57
Sandwich, minced chicken with lettuce.....	.10	.034	172.5	86.3	1.45
Sandwich, minced ham.....	.05	.025	277.3	277.3	.45
Sandwich, minced ham with olives.....	.05	.021	206.8	206.8	.60
Sandwich, minced tongue with tea biscuits.....	.05	.....	225.6	225.6	.55
Sandwich, oyster.....	.10	.024	307.6	153.8	.81
Sandwich, pimento olive, cheese.....	.05	.....	152.3	152.3	.82
Sandwich, roast beef, hot....	.15	.043	244.4	81.5	1.53
Sandwich, roast beef with roll	.05	.....	357.8	357.8	.35
Sandwich, sardine.....	.05	.....	207.4	207.4	.60
Sandwich, swiss cheese.....	.05	.....	244.0	244.0	.51
Sandwich, tomato.....	.05	.021	133.6	133.6	.94
Sausage, country.....	.05	.032	227.7	227.7	.55
Sausage, country, and French fried potatoes.....	.15	.....	501.6	167.2	.75
Shad, baked, and dressing....	.20	.154	630.6	157.7	.79
Shortcake, strawberry.....	.15	.032	275.3	91.8	1.36
Shredded wheat and cream....	.15	.....	478.6	159.5	.78
Shredded wheat and milk.....	.10	.....	381.6	190.8	.66
Soup, bean, with croutons....	.10	.047	168.8	84.4	1.48
Soup, chicken.....	.15	.090	301.2	100.4	1.24
Soup, green split pea.....	.10	.075	228.2	114.1	1.10
Soup, tomato, with rice.....	.10	.....	73.1	36.6	3.42
Soup, vegetable.....	.10	.019	196.2	98.1	1.27
Spaghetti and cheese.....	.10	.007	175.9	88.0	1.42
Steak, hamburger.....	.20	.087	682.1	170.5	.73
Steak, hamburger with Spanish sauce.....	.20	.....	629.6	157.4	.79
Steak, sirloin.....	.50	.136	1,280.8	128.1	.98
Steak, sirloin with onions....	.55	.....	1,209.8	110.0	1.14
Steak, small.....	.35	.090	965.8	138.0	.91
Steak, small, with onions....	.40	.....	946.5	118.3	1.06
Steak, tenderloin.....	.55	.200	1,169.3	106.3	1.18
Steak, tenderloin, with onions	.60	.....	1,359.1	113.3	1.10
Stew, beef.....	.15	.059	599.4	199.8	.63
Stew, lamb.....	.15	.048	580.8	193.6	.65
Strawberries with cream....	.15	.049	275.7	91.9	1.36
Strawberries with ice cream..	.15	.....	195.1	65.0	1.92
Tart, strawberry.....	.10	.....	221.9	111.0	1.13
Toast, buttered.....	.10	.019	299.3	149.7	.83
Toast, French, with maple cane syrup.....	.20	.....	716.8	179.2	.70
Toast, milk.....	.15	.057	316.8	105.6	1.18
Tomato, sliced.....	.10	.....	30.3	15.2	8.20
Tomato, sliced with lettuce...	.15	.....	49.8	16.6	7.53

Name of Food	Cost per Portion	Estimated Wholesale Cost of Ingredients per Portion	Nutritional Calories per Portion	Nutritional Calories for Five Cents	Cost of 2,500 Calories
Tomato and lettuce with dressing .....	\$0.20	.....	53.8	13.5	\$9.26
Veal cutlet, breaded, and tomato sauce .....	.20	\$0.069	847.7	211.9	.59
Veal pot pie with dumplings..	.15	.....	524.8	174.9	.71
Watermelon .....	.15	.....	118.3	39.4	3.17
Weakfish, baked, with dressing	.20	.....	515.5	128.9	.97



TABLE 10.—WHOLESALE PRICES

## Groceries:

Almonds, whole .....	\$0.21	lb.
Almonds, shelled .....	.37	lb.
Allspice .....	.10	lb.
Allspice, cloves and cinnamon, ground.....	.12	lb.
Apples, evaporated .....	.103	lb.
Baking powder .....	.432	lb.
Beans, string .....	.09	lb. can
Beans, pea .....	.0566	qt.
Beef, dried .....	.28	lb.
Bread, 22-ounce loaf.....	.08	
Bread, 22-ounce loaf day old.....	.04	
Bay leaves .....	.003	oz.
Barley .....	.21	lb. (?)
Brandy .....	2.25	gal.
Chocolate, Baker's .....	.29	lb.
Citron .....	.16	lb.
Cinnamon .....	.14	lb.
Currants .....	.0825	lb.
Cider .....	.15	gal.
Celery salt .....	.44	lb.
Clams, canned .....	.085	lb.
Cloves .....	.10	¼ lb.
Cocoa .....	.12	lb.
Coffee .....	.16	lb.
Cornmeal .....	.018	lb.
Cornstarch .....	.035	lb.
Curry powder .....	.07	bottle
Catsup .....	.37	gal.
Cornflakes .....	.057	pkg.
Flour, wheat .....	6.25	bbl., .0364 lb.
Flour, buckwheat .....	.022	lb.
Horseradish .....	.15	lb.
Lemon extract .....	1.00	qt.
Lard .....	.125	lb.
Mace .....	.047	oz.
Marrow beans .....	.065	lb.
Molasses, New Orleans.....	.29	gal.
Molasses, black strap.....	.11	gal.
Mustard .....	.034	¼ lb.
Nutmeg .....	.023	oz.
Oatmeal .....	.025	lb.
Olive oil .....	.21	pt.
Olives .....	.56	gal.
Paprika .....	.04	oz.
Pepper .....	.045	¼ lb.
Prunes .....	.04	lb. (50-60's)
Peas, split .....	.04	lb.
Raisins .....	.065	lb.
Rice .....	.026	lb.
Salt .....	.014	lb.
Saltpetre .....	.0925	lb.
Spaghetti .....	.045	lb.
Soda .....	.0175	lb.
Sugar, gran. ....	.04	lb.
Sugar, stan. powd. ....	.053	lb.
Sugar, XXXX .....	.054	lb.
Sherry wine .....	.65	gal.
Tomatoes .....	.05	qt.
Tabasco sauce .....	.189	bottle
Tapoca, pearl .....	.023	lb.
Tea .....	.18	lb.
Thyme .....	.075	lb.
Vanilla .....	3.25	gal.
Vinegar .....	.16	gal.
Walnuts, English .....	.17	lb.
Worcestershire sauce .....	3.375	per doz. pts.
Yeast, compressed .....	.015	oz.

## Dairy Products:

Butter .....	.35	lb.
Buttermilk .....	.054	qt.
Cream, 25 per cent. ....	.30	qt.
Cheese, American .....	.14	lb.

TABLE 10.—WHOLESALE PRICES—(Continued)

## Dairy Products—Continued:

Cheese, cream .....	\$0.0833	pkg.
Eggs .....	.30	doz.
Milk .....	.0625	qt.

## Fruits and Vegetables:

Apples .....	2.50	bbl.
Bananas .....	1.25	bch. (150)
Cabbage .....	.042	head
Carrots .....	.021	lb.
Celery .....	.015	stalk
Lettuce .....	.03	head
Lemons .....	.14	doz.
Mushrooms .....	.17	14-oz. can
Onions .....	.02	lb.
Oranges .....	.16	doz.
Peppers .....	1.25	bbl.
Parsley .....	.0125	bch.
Potatoes .....	.016	lb.
Rhubarb .....	1.50	per 100 bunches
Strawberries (in season) .....	.05	qt.
Tomatoes .....	3.50	per crate (144)
Turnips (white) .....	.03	lb.

## Meats:

Beef, round .....	.16	lb.
Beef, rump .....	.14	lb.
Beef, top round .....	.16	lb.
Beef, stew meat .....	.16	lb.
Beef, sirloin .....	.16	lb.
Beef, tenderloin .....	.28	lb.
Beef, hamburger .....	.16	lb.
Beef, butt .....	.16	lb.
Beef, bull meat, lean.....	.12	lb.
Bacon .....	.20	lb.
Chicken (fowl) .....	.18	lb.
Chicken, fat .....	.10	lb.
Lamb, rib chops .....	.16	lb.
Lamb, shoulder chops .....	.14	lb.
Lamb, chuck .....	.12	lb.
Liver .....	.11	lb.
Ham shanks .....	.15	each
Ham bones .....	.10	lb.
Ham for boiling .....	.18	lb.
Pork, shoulder .....	.15	lb.
Pork, belly .....	.16	lb.
Pork, larding .....	.16	lb.
Sheep casings .....	.15	lb.
Veal, leg .....	.16	lb.

## Fish:

Blue fish .....	.12	lb.
Clams, little neck.....	8.25	per 1,000
Codfish, fresh .....	.14	lb.
Codfish, salt .....	.08	lb.
Crab meat, lump.....	1.25	lb.
Halibut .....	.07	lb.
Norway mackerel .....	.125	lb.
Oysters, blue points.....	6.00	per 1,000
Oysters .....	4.50	per 1,000
Oyster liquor .....	.25	qt.
Oysters, box .....	5.50	per 1,000
Smelts .....	.09	lb.
Shad .....	.32	lb.
Tuna fish .....	1.95	per doz. cans



IX.—TABLE 12.—LIST OF PORTIONS IN GROUPS  
ACCORDING TO CALORIC VALUE

IX.—TABLE 12.—CLASSIFIED LIST OF PORTIONS ARRANGED

Calories	Soups	Meats	Sandwiches	Eggs	Beans
0 (0-50)	.....	.....	.....	.....	.....
100 (50-150)	Tomato, with rice, 10 cents	.....	Tomato, 5 cents	.....	Boston beans "on the side," 5 cents
200 (150-250)	Bean, with croutons, 10 cents Green split pea, 10 cents Vegetable, 10 cents	Country sausage, 5 cents	American cheese, 5 cents Chicken, sliced, 10 cents Corned beef, 5 cents. Creamed cheese with walnut, 5 cents Ham, 5 cents Minced chicken, 5 cents Minced chicken with lettuce, 10 cents Minced ham with olives, 5 cents Minced tongue with tea bis- cuits, 5 cents Pimento, olive, cheese, 5 cents Sardine, 5 cents	.....	New York beans "on the side," 5 cents
300 (250-350)	Chicken, 15 cents	.....	Chicken salad, 10 cents Fried egg, 10 cents Fish cake, 10 cents	Two poached eggs on toast, 20 cents	



IN GROUPS ACCORDING TO THEIR CALORIC VALUE

Dairy Dishes	Oysters	Pastry and Dessert	Salads	Miscellaneous	Fruits
		.....	.....	Tomatoes, sliced, 10 cents	Cantaloupe, 15 cents Pineapple, sliced, 5 cents
Cream of wheat, 10 cents	Oysters, raw, 15 cents	Cornstarch, strawberry, 5 cents Jelly, pineapple fruit, with whipped cream, 5 cents	.....	Bulgarzoon, 5 cents Corn, stewed, 5 cents Macaroni, side order, 5 cents Rhubarb, stewed, 5 cents Rice, boiled, side order, 5 cents Tomatoes, sliced with lettuce, 15 cents. Tomatoes and lettuce with dressing, 20 cts.	Apple, baked, 5 cents Apple sauce with whipped cream, 5 cents Bananas, sliced, 5 cents Grape fruit, 15 cents Watermelon, 15 cents
Corn flakes and milk, 10 cents Graham crackers, 5 cents	.....	Cocoanut cake, 5 cents Chocolate layer cake, 5 cents Charlotte russe, 5 cents Chocolate cornstarch with cream, 5 cents Chocolate cornstarch with whipped cream, 5 cents Vanilla cornstarch with cream, 5 cents Cream roll, 5 cents Cup custard, 10 cents Chocolate eclaire, 5 cents Strawberry ice cream, 10 cents Strawberry tart, 10 cents Vanilla ice cream, 10 cents Strawberry fruit jelly with whipped cream, 5 cents Indian pudding with maple sauce, 5 cents Apple tapioca pudding, 5 cents Creamed tapioca pudding, 5 cents	.....	Asparagus creamed on toast, 20 cents Cup of coffee, 5 cents Spaghetti and cheese, 10 cents	Blackberries and cream, 10 cents Strawberries with ice cream, 15 cents
Milk crackers, 5 cents Maple flakes with milk, 10 cents	.....	Chocolate spice cakes, 5 cents Coffee cake, 5 cents Banana layer cake, 5 cents		Apple fritters with fruit sauce, 10 cents Butter cakes, 5 cents	Baked apple with ice cream, 10 cents Bananas sliced with cream, 10 cents

TABLE 12.—CLASSIFIED LIST OF PORTIONS ARRANGED IN

Calories	Soups	Meats	Sandwiches	Eggs	Beans
300 (250-350)			Ham with roll, 5 cents Minced ham, 5 cents Oyster, 10 cents Hot roast beef, 15 cents Swiss cheese, 5 cents		
400 (350-450)	Clam Chowder, 20 cents	Corned beef, 15 cents Creamed chicken on toast, 20 cents Deviled crabs, 20 cents	Club, 25 cents Roast beef with roll, 5 cents	Two boiled eggs, 15 cents	New York beans with tomato sauce, 10 cents
500 (450-550)	.....	Corned beef and Boston beans, 15 cents Corned beef hash, browned in pan, 15 cents Corned beef hash, steamed, 15 cents Corned beef with potato salad, 15 cents Creamed chipped beef, 15 cents Cold roast beef, 15 cents Roast sirloin of beef and mashed potatoes, 20 cents		Two fried eggs, 15 cents Two scrambled eggs, 15 cents Chicken omelet, 25 cents Parsley Omelet, 20 cents Plain omelet, 15 cents	Boston baked beans, 10 cents New York baked beans, 10 cents Boston beans and corned beef, 15 cents

GROUPS ACCORDING TO THEIR CALORIC VALUE—(Continued)

Dairy Dishes	Oysters	Pastry and Dessert	Salads	Miscellaneous	Fruits
		Walnut layer cake with marsh-mallow icing, 5 cents Old fashioned molasses cake, 5 cents Baked apple custard with whipped cream, 10 cents Apple pie, 5 cents Lemon pie, 5 cents Pumpkin pie, 5 cents Rhubarb pie, 5 cents Bread pudding with vanilla sauce, 5 cents New England pudding with vanilla sauce, 5 cents Rice pudding, 5 cents Strawberry short-cake, 15 cents		Cocoa, 5 cents Milk 10 cents Corn muffins, 5 cents French fried potatoes (extra order), 10 cents Hot rice with butter, 10 cents Buttered toast, 10 cents Milk toast, 15 cents Hot rice with milk, 10 cents	Strawberries with cream, 15 cents
Soda crackers and milk, 10 cents Oatmeal with cream 15 cents Shredded wheat and milk, 10 cents	.....	Pound cake, 10 cents Blackberry pie, 10 cents Cherry pie, 10 cents Coconut pie, 5 cents Huckleberry pie, 10 cents Mince pie, 10 cts. Peach pie, 10 cts. Pineapple pie, 5 cents Strawberry pie, 10 cents Bread custard pudding, 5 cents Cabinet pudding with vanilla sauce, 5 cents	Crab meat salad, 20 cents Potato salad, 10 cents	Bath buns, 5 cents Buckwheat cakes with maple cane syrup, 10 cents Baked macaroni and cheese, 10 cents	Baked apple with cream, 10 cents
Milk crackers and milk, 10 cents Shredded wheat and cream, 15 cents	.....	Crullers, 5 cents Napoleon, 5 cents	Egg salad, 20 cents	Hot corn bread, 10 cents Wheat cakes with maple cane syrup, 10 cents Cream, 15 cents Hot rice with cream, 15 cents Hot rice with poached egg, 15 cents	

TABLE 12.—CLASSIFIED LIST OF PORTIONS ARRANGED IN

Calories	Soups	Meats	Sandwiches	Eggs	Beans
500 (450-550)		Chicken croquette and French fried potatoes, 15 cents Chicken hash, 15 cents Fish cakes with macaroni, 20 cts. Fish cakes with spaghetti, 20 cts. Fish cakes with tomato sauce, 15 cents Fried ham, 25 cents Fried liver with mashed potatoes, 15 cents. Country sausage and French fried potatoes, 15 cts.			
600 (550-650)	Beef stew, 15 cents Lamb stew, 15 cents	Corned beef and New York beans, 15 cents Corned beef hash, steamed, with poached egg, 20 cents Roast beef croquette with spaghetti, 15 cents Roast beef with potato salad, 25 cents Chicken outlet with mashed potatoes, 15 cents Creamed codfish on toast, 15 cts. Fish cakes with poached egg, 20 cents Frankfurters with potato salad, 15 cents Cold ham, 15 cts. Ham croquette, 10 cents Ham and Boston beans, 15 cents Lamb chops, breaded, with mashed potatoes, 20 cents Lamb pie, baked, individual, 15 cents Pork and New York beans, 15 cents Vienna roast with stewed tomatoes, 15 cts. Veal pot pie with dumpling, 15 cents Baked weakfish with dressing, 20 cents		Macaroni omelet, 25 cents Onion omelet, 20 cents Tomato omelet with potatoes, 25 cents	Baked beans with macaroni, 15 cents Corned beef and New York beans, 15 cents Ham and Boston beans, 15 cents Pork and New York beans, 15 cents

GROUPS ACCORDING TO THEIR CALORIC VALUE—(Continued)

Dairy Dishes	Oysters	Pastry and Dessert	Salads	Miscellaneous	Fruits
			Tuna fish salad, 25 cents	Cornmeal cakes with maple cane syrup, 10 cents Rice cakes with maple cane syrup, 15 cents Egg plant fried in butter, 15 cents Rice croquettes with bacon, 15 cents	



TABLE 12.—CLASSIFIED LIST OF PORTIONS ARRANGED IN

Calories	Soups	Meats	Sandwiches	Eggs	Beans
700 (650-750)	.....	Beef cakes with brown gravy and macaroni, 15 cents Corned beef hash with poached egg, 20 cents Roast beef croquette with macaroni, 15 cts. Roast beef cutlet with mashed potatoes, 15 cts. Roast beef hash, browned, 15 cts. Chicken giblets on toast, 20 cts. Ham and New York beans, 15 cents Ham and potato salad, 20 cents Lamb cutlet with mashed potatoes, 15 cents Vienna roast with spaghetti and potatoes, 15 cents Baked shad and dressing, 20 cts. Hamburger steak 20 cents		Creamed eggs on toast, 20 cents Ham omelet, 20 cents Tomato omelet, 20 cents Spanish omelet with French fried potatoes 25 cents	Ham and New York beans, 15 cents
800 (750-850)	.....	Broiled bacon, 20 cents Bacon and eggs, 25 cents Chipped beef and scrambled eggs, 20 cents Corned beef hash browned with two poached eggs, 25 cents Creamed chipped beef on toast, 15 cents Roast beef cutlet with tomato sauce, 15 cents Chicken wings on toast, 20 cents Ham and eggs, 25 cents Liver and bacon, 25 cents Liver and bacon with Lyonnaise potatoes, 25 cts. Liver and onions with French fried potatoes, 20 cents Broiled salt mackerel with mashed potatoes, 20 cents German meat cakes with Lyonnaise potatoes, 15 cents		Chipped beef and scrambled eggs, 20 cents Bacon and eggs, 25 cents Ham and eggs, 25 cents Minced ham and scrambled eggs, 20 cents	

GROUPS ACCORDING TO THEIR CALORIC VALUE—(Continued)

Dairy Dishes	Oysters	Pastry and Dessert	Salads	Miscellaneous	Fruits
.....	Small oyster fry, 20 cents Oyster pie, 15 cents			Buckwheat cakes with country sausage, 20 cents French toast with maple cane syrup, 20 cents	
.....	Large oyster fry, 25 cents				

TABLE 12.—CLASSIFIED LIST OF PORTIONS ARRANGED IN

Calories	Soups	Meats	Sandwiches	Eggs	Beans
900 (850-950)	.....	B a c o n, fried, with French fried potatoes, 20 cents Broiled ham, 20 cents Two lamb chops, 30 cents Lamb croquette and mashed po- tatoes, 15 cents G e r m a n m e a t c a k e s w i t h French fried po- tatoes, 15 cents Pork and Boston beans, 15 cents V i e n n a r o a s t with French fried potatoes, 15 cents V e a l c u t l e t, breaded, with tomato sauce, 20 cents			Pork and Boston beans, 15 cents
1000 (950-1050)	.....	Small steak, 35 cents Small steak with onions, 40 cents			
1200 (1150-1250)	.....	Sirloin steak with onions, 55 cents Tenderloin steak, 55 cents			
1300 (1250-1350)	.....	Sirloin steak, 50 cents			
1400 (1350-1450)	.....	Tenderloin steak with onions, 60 cents			

GROUPS ACCORDING TO THEIR CALORIC VALUE—(Continued)

Dairy Dishes	Oysters	Pastry and Dessert	Salads	Miscellaneous	Fruits
.....	Oyster fry, plain, with bacon, 30 cents				







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